THE IMPACT OF INFORMATION TECHNOLOGY ON STRATEGY IMPLEMENTATION IN PUBLIC SECTOR ORGANISATIONS IN SAUDI ARABIA

AN ACTION RESEARCH ENQUIRY

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor of Business Administration

by

Rafat Aziz Dasan

Date: 12 April 2019

Abstract

The Impact of Information Technology on Strategy Implementation in Public Sector Organisations in Saudi Arabia

Rafat Aziz Dasan

This research presents new empirical evidence on the practice of strategy implementation in public organisations in Saudi Arabia, which is a rentier state, meaning that a great source of its income is obtained by renting its natural resources. Since 1970, the Saudi government's development plans have involved efforts to reduce dependency on oil and to increase other sources of income. Several analyses of the current state of the Saudi economy demonstrate that oil remains the primary and dominant driver of the economy. This indicates an issue with the implementation of strategies in the country. This research identifies the dynamics of the strategy implementation issue within Saudi public organisations and confirms the positive impact of strategy implementation on improving organisational performance.

Moreover, the research provides a descriptive account for exploring different drivers that have the utmost impact on strategy implementation, such as a coordinated body to manage the strategy implementation activities driver and information technology (IT) driver. Then, the research decomposes the IT driver and confirms that the factors of the automation of processes (business and support processes) have a greater impact on strategy implementation. The literature review conducted in this research resulted in a better understanding of the issues and obstacles surrounding strategy implementation. The first stage of this research used mixed methods; the quantitative method using questionnaires confirmed the positive impact of strategy implementation on organisational performance, identified the strategy implementation drivers and decomposed the IT driver. Next, qualitative research using interviews with mid-level managers in the public sector in Saudi Arabia reported their recommended actions for enlarging the benefits of the factors of the automation of processes. This study concludes that the need exists to direct more attention towards strategy implementation and that IT can play a greater role in improving this endeavour.

Table of Contents

1 Introduction 7

1.1 Research Topic Facets 11

1.1.1 Importance of Strategy Implementation 11

1.1.2 Strategy Implementation and Information Technology 11

1.2 Research Purpose, Objectives, Design and Questions 12

1.2.1 Purpose and Objectives 12

1.2.2 Research Design 13

1.2.3 Research Questions 14

1.3 Research Context 15

1.3.1 Saudi Arabia 16

1.4 Feasibility and Motive 19

1.5 Thesis Outline 21

2 Literature Review 23

2.1 Strategy Implementation 24

2.1.1 Strategy Implementation Models 24

2.1.2 The Gap Between Strategic Planning and Implementation 29

2.1.3 Strategy Implementation Problems 31

2.1.4 Governance 33

2.1.5 Innovation, Agility and Openness 35

2.2 The Research Building Blocks 36

2.3 Strategy Implementation Effectiveness and Organisational Performance 38

2.4 Drivers Impacting Strategy Implementation Effectiveness 40

2.5 The IT Impact on Strategy Implementation Effectiveness 41

2.5.1 Strategic Role of IT in Organisational Performance 41

2.5.2 Alignment Between Business Strategy and IT Strategy 44

2.5.3 Automation of Processes 46

2.6 Strategy Implementation in Saudi Arabia and Other Countries 47

2.6.1 Rentierism 47

2.6.2 Strategy Implementation in Saudi Arabia 48

2.6.3 Strategy Implementation in Other Countries 50

2.7 Literature Review Synopsis 52

3 Research Methodology 55

3.1 Philosophical Position 56

3.1.1 Ethical Issues 58

3.2 Methodological Approach 58
3.2.1 Action Research 58
3.2.2 The Gap Between Theory and Practice 60
3.2.3 Research Design 61
3.2.4 Unit of Analysis 63
3.2.5 Research Population and Sample 63
3.2.6 Reliability and Validity 66
3.2.7 The Generated Change 66
3.3 Quantitative Methods 67
3.3.1 Survey Process 68
3.3.2 Questionnaire Preparation 68
3.3.3 Questionnaire Pilot 69
3.3.4 Questionnaire Dissemination 70
3.3.5 Data Consolidation 72
3.3.6 Analysis 72
3.4 Qualitative Methods 73
3.4.1 Interview Preparation 74
3.4.2 Conduct Interviews 75
3.4.3 Transcribing and Data Consolidation 77
3.4.4 Analysis 77
3.5 Research Methodology Synopsis 80
4 Findings 82
4.1 Impact of Context on the Research Findings 82
4.2 Quantitative Analysis and Findings 84
4.2.1 Nominal Variables Analysis and Findings 84
4.2.2 Ordinal Variables Analysis and Findings 86
4.3 Qualitative Analysis and Findings 94
4.3.1 Insights 95
4.3.2 Challenges 99
4.3.3 Actions 100
4.3.4 Advice 105
4.4 Integrated Discussion 106
4.4.1 Quotes 106
4.4.2 Integrated View 107
5 Conclusions 108
5.1 The Complete Framework 109

5.2 Study Implications 112
5.3 Study Limitations 114
5.3.1 Exploratory Nature of the Study 115
5.3.2 Population, Sample and Unit of Analysis Limitations 115
5.3.3 Quantitative Survey Limitations 115
5.3.4 Qualitative Interview Limitations 116
5.3.5 Targeted Middle Management 116
5.3.6 Targeted Saudi Public Organisations 116
5.3.7 Generalising the Research Findings Limitations 117
5.3.8 Limitations Impact 117
5.4 Further Research 117
6 References 119
7 Appendices 131
7.1 Appendix - Questionnaire 131
7.2 Appendix – Code Book 139
7.3 Appendix – Interview Form 149
7.4 Appendix – Questionnaire in Arabic Language 153

List of Figures

Figure 1-1 Research Context Perspectives 15
Figure 1-2 Research Puzzle 16
Figure 2-1 The Research Building Blocks 37
Figure 2-2 The Research Framework 54
Figure 3-1 The Study's Action Research Perspective 61
Figure 3-2 Quantitative and Qualitative Approaches to the Research Design 62
Figure 3-3 The distribution of the Managers Among the Different Organisations 65
Figure 3-4 Action Research Cycle 67
Figure 3-5 Flow Diagram of the Survey Process 68
Figure 3-6 Survey Waves Response Rates 71
Figure 3-7 Workflow Process for the Qualitative Stage 74
Figure 3-8 An Example of a Mind-Map of One of the Interviews 79
Figure 5-1 Complete Research Framework 110

List of Tables

Table 1-1 The Kingdom of Saudi Arabia's (KSA) Actual Revenues and Expenditures 2013–2017 19
Table 2-1 Results of Literature Search 23
Table 3-1 The Distribution of Targeted Participants in Organisations 65
Table 3-2 Brief Information About the Interviews 76
Table 4-1 Nominal Variables Analysis 85
Table 4-2 Strategy Implementation Importance Variable Analysis 87
Table 4-3 Strategy Implementation Drivers Variable 89
Table 4-4 Positive Information Technology Factors 90
Table 4-5 Negative Information Technology Factors 91
Table 4-6 Information Technology Factors Importance Scores Matrix 92
Table 4-7 Information Technology Factors Ranking 93

1 Introduction

Organisations engage in several mechanisms to improve their performance, such as utilising skilled human resources, technologies and strategies. They seek to increase profits and achieve their stated objectives. Strategic management is one critical mechanism that aids organisations in improving their performance. It possesses several tools that organisations can use to improve their performance and achieve targeted metrics (particularly financial ones) by improving their production and operation activities. Additionally, organisations must link strategic management to performance management processes. In doing this, organisations can measure their businesses' performance against the strategic objectives and targets, which may help them to align their resources and capabilities with the strategic organisational objectives (Poister, 2010).

Strategic management covers the full lifecycle of any organisation's strategy, from the stage of strategy formulation to achieving its objectives (Andrews et al., 2009, Kaplan and Norton, 2005). Strategic management is a complete process that relies on strategic thinking, learning and action as ongoing organisational activities. It begins with planning and then involves implementation, evaluation and controlling, and it concludes with an update of the strategy (Poister, 2005). Strategic management, as a subject area, consists of two main domains: strategic planning and strategy implementation. Strategic planning is the group of activities required to formulate a strategy and establish the strategic objectives and targets (Bryson et al., 2009, Poister, 2010). Strategy implementation consists of the activities required to execute the strategy and to focus the organisation's efforts and resources towards achieving the strategic objectives (Krishnakumar, 2015, Al-Gamdi, 2006).

Organisations adopt strategic management in the private and public sectors in various ways due to the different nature and dynamics of both sectors. Strategic management involves the integration between strategic planning and implementation in an ongoing manner that allows the organisation to fulfil its mission and mandates to generate the intended value for the public (Bryson, 2010). Organisations in public and private sectors must pay more attention to adopting a complete strategic management approach to effectively assist implementation of their strategies. Rather than focusing on processes separately, they should move towards a more holistic approach to achieve their strategic objectives. Strategic planning and implementation are both action-oriented practices that interact with one another. Strategic planning focuses on framing and guiding the decision-making process; however, strategy implementation focuses more on sustaining the actions within the mandates and strategy boundaries (Bryson, 2010).

Many definitions of ‘strategy’ can be found in the literature; however, in this research, as it is targeting the phenomenon of strategy implementation in the public sector, ‘strategy’ refers to the plan that is used to realise the organisation’s mission, meet its mandate and generate value for the public (Bryson, 2018).

The strategic planning stage of the strategic management process is ubiquitous in organisations around the globe—in both the public and private sectors. It has become a tool used by public planners (Bryson, 1988), as adopting strategic planning in public and non-profit organisations leads to several benefits, such as disseminating learning and strategic thinking, enhancing the decision-making process, improving the effectiveness and responsiveness of the organisation and improving employee moral (Bryson, 2010). In this stage, we formulate the strategy to help managers make decisions and implement the correct actions for their organisations (Bryson et al., 2009). Moreover, strategic planning is a group of practices that have an impact on shaping an organisation's direction within legal controls, helping organisations with decision making and solving an organisation's issues (Bryson, 1988). In the US government, strategic planning is used by a large number of non-profit and public organisations as it has mainly been proved as a practice that works successfully (Bryson, 2010).

Organisations around the world spend a great deal of time, money and effort to formulate their strategies to establish objectives to achieve in the future. While some of these objectives are achieved (Rathnam et al., 2005), others are not and become nightmares due to unrealistic targets or implementation failures (Pella et al., 2013). Several scholars have found that managers tend to focus on the strategic planning stage more than strategy implementation (Brenes et al., 2008, Fishman, 2009, Pella et al., 2013). Managers often concentrate on formulating a strategy without focusing on implementation and how the strategy will be actualised. This tendency of focusing more on planning than implementation appears in the management literature: more research addresses strategic planning—much less is focused on strategy implementation (Fishman, 2009).

Strategy implementation is an essential component of the strategic management process and is crucial to an organisation’s success ((Elbanna et al., 2016, Noble, 1999). If organisations fail to execute their strategy, then the strategic planning efforts and investments are worthless and may not achieve the organisational objectives (Brenes et al., 2008, Fishman, 2009, Pella et al., 2013).

As a practitioner in the field of strategic management for more than 20 years, the researcher has observed the issue of failed strategy implementation in various sectors and industries. The

researcher has witnessed public organisations in Saudi Arabia fail to implement their strategies, even though they are well formulated. In order to help these public organisations improve the implementation of their strategies, the researcher decided to pursue this research to support managers in this field.

By conducting this study, the researcher intends to fill the knowledge gap in the literature by gaining insights from theory and linking them to the practice as follows: researchers address the strategic planning aspect of strategic management much more than strategy implementation (Brenes et al., 2008, Fishman, 2009, Pella et al., 2013), and although efforts have been made by researchers in the strategic management field in the public sector (Bryson, 1988, Andrews et al., 2011, Elbanna et al., 2016), very little research has investigated strategy implementation and its main drivers in the Middle East in general and in Saudi Arabia in particular. Moreover, little is known about the different factors that impact strategy implementation (Mitchell, 2018). This research participates in the efforts to produce more research on strategy implementation in the public sector in Saudi Arabia. Furthermore, this research intends to help middle management improve strategy implementation using information technology (IT) to enhance overall organisational performance.

For this research, the researcher will focus on an important factor that helps strategy implementation in any organisation: information technology (IT). Today, technology is ubiquitous. Advances in technology occur every moment, and IT is playing a greater role in organisations and how they perform. IT refers to the use of computers, telecommunications and storage to create, store, secure, process and disseminate electronic information (Drnevich and Croson, 2013, Karimi et al., 2007). Today, a business strategy must be digital and use IT as a driver for doing business (Ross et al., 2017). This research critically studies the phenomenon of strategy implementation to help managers overcome challenges involved in using IT and provides them with actionable knowledge that can be used in the work environment. This knowledge is rooted in both theory and practice and can be applied directly to organisational activities.

By conducting this study, the researcher aims to participate in efforts to solve strategy implementation issues by capitalising on IT when performing strategic organisational activities and by developing a detailed plan that will consolidate actions practised by different managers in the public sector in Saudi Arabia. The managers who participated in this study work in public sector organisations in Saudi Arabia, which is considered a rentier state that depends on natural resources to feed its economy. Saudi Arabia is a wealthy country, with unique social and

historical backgrounds due to its importance in the Islamic world. The country's public sector is unique due to the dynamics that reside behind the rentier state concept that drives massive government spending in a variety of aspects of society.

This research intends to achieve four objectives. The first is to explore different drivers that impact strategy implementation. The second objective is to identify and rank IT factors that impact strategy implementation activities. The third is to look at different aspects of IT factors with greater impacts and practices followed by managers in this regard. The last and most important objective is to form an action plan that can be adopted by managers to help them enhance strategy implementation within their organisations by utilising IT factors with greater impacts.

The study is an action research project that seeks actions and advice to improve strategy implementation practice. The managers who participated in this study suggested actions that would improve strategy implementation activities. Afterwards, the researcher reflected on these reported actions and advice to devise a consolidated action plan that is linked to theory, which could be implemented by other managers to improve their strategy implementation within their organisations.

Moreover, this research was conducted using a mixed methods research approach (using both quantitative and qualitative methods) to identify different dynamics of the strategy implementation issue, learn how to utilise IT to improve implementation and define a set of actions that can be followed by practitioners in the field of strategy implementation. The research was conducted by issuing questionnaires and interviewing individuals at the middle management level in Saudi public organisations. The main achievement of this research is the creation of action plans with recommendations from real-world practitioners to help other professionals with strategic activities and the achievement of organisational goals.

By conducting this research, the researcher gained several benefits. The researcher discovered several aspects of strategy implementation and obtained several insights from individuals who work in the public sector in different industries, such as information and communication technology (ICT), water resources and health industries. The researcher's learning cycle was developed in each stage of the research by gaining different types of learning and new ways of thinking.

1.1 Research Topic Facets

1.1.1 Importance of Strategy Implementation

Strategy implementation is an essential component of the strategic management process and is crucial to its success. It has different definitions in the literature; however, the researcher considered the following definition to be the most appropriate in this study. Strategy implementation is the communication, understanding, adoption and enactment of strategies within public organisations (Noble, 1999, Bryson et al., 2010). If one fails to implement their strategy, then the strategic planning efforts and investments that the government has made are worthless and may not achieve the organisational objectives (Pella et al., 2013). Managers, researchers and practitioners in public organisations must place more focus on strategy implementation and reflect more on how to help their organisations implement strategies by providing them with the necessary frameworks, methods and tools. Strategy implementation is vital for any organisation that seeks to achieve its objectives and goals; however, this is one of the main challenges managers face today. This is true for the private sector as well. Managers have begun to realise the critical role of successful strategy implementation in enhancing organisational performance (Elbanna et al., 2016, Andrews et al., 2017, Elbanna, 2012). To achieve this, managers must ensure the organisation's structure is aligned with the strategy so that the correct controls are in place to manage strategy implementation activities and to ensure the strategy is implemented effectively (Marx and Bowden, 2016).

This research critically studies the phenomenon of strategy implementation and the challenges that face managers in public sector organisations in Saudi Arabia and how to overcome these challenges by providing them with actionable knowledge that can be used in the work environment. This knowledge is rooted in both theory and practice and can be applied directly to organisational activities (Stacey, 2007, Al-Gamdi, 2006, Elbanna and Fadol, 2016).

1.1.2 Strategy Implementation and Information Technology

Several organisational drivers affect strategy implementation, such as human resources, corporate communication, IT and culture (Fishman, 2009). In this study, the researcher discusses and focuses on one driver—information technology. IT has been identified as an essential driver by several authors, including Foreman and Argenti (2005), Lu and Ramamurthy (2011) and Ray et al. (2005). Organisations face several obstacles when implementing planned strategic activities, such as lack of resources and capabilities or improper organisational structure. IT is one of the most important aspects affecting strategy

implementation in the public sector and can help managers face these obstacles and mitigate their impact (Heide et al., 2002, Mitchell, 2018).

The IT driver, in itself, is a construct that consists of several factors (Foreman and Argenti, 2005) that have different levels of impact on the implementation of a strategy. The present study explores these factors and identifies the IT factors with the greatest impact on strategy implementation activities. The systems used to support strategy are very important, and IT is the leading player in strengthening this capability. It is also an essential component of other capabilities (Crittenden and Crittenden, 2008). This supports the idea that IT is necessary for successful strategy implementation. Since IT is one of the essential drivers in successful strategy implementation, in this research, the researcher critically decomposes this dimension to determine the IT factors with the greatest impact on strategy implementation activities within organisations. Additionally, the researcher provides recommended actions for capitalising on these factors that have the utmost impact.

1.2 Research Purpose, Objectives, Design and Questions

1.2.1 Purpose and Objectives

The purpose of this research is to develop a better understanding of the different dynamics of strategy implementation: models, importance, obstacles, challenges and others to fill a significant gap in the literature by reporting the findings of a study on strategy implementation importance and to explore strategy implementation drivers in Saudi public sector organisations. In addition, the research identifies how to utilise the IT factors with greater impacts to improve strategy implementation by recommending a set of practices and actions to improve strategy implementation. This research participates in efforts to solve the issue of strategy implementation by discovering new knowledge about capitalising on IT when performing strategic organisational activities and enhancing strategy implementation and overall organisational performance. The context of this research—the Saudi Arabian public sector affected by the dynamics of rentierism—is an important aspect (Reiche, 2010, Auping et al., 2016).

This research has four key objectives. The first is to explore the different drivers that impact strategy implementation. This will provide a better understanding of the different strategy implementation dynamics, challenges, models and drivers that impact strategy implementation activities.

The second objective is to identify and rank the IT factor(s) that impact strategic implementation activities. IT is a significant player in organisations' success formulas, so this step aims to rank the IT factors based on their impact on strategy implementation.

The third objective is to go into greater depth by looking at different aspects of the IT factors with greater impacts and the practices followed by managers in this regard. After identifying the IT factors, a more detailed analysis will be performed on the IT factors with greater impacts on strategy implementation to better understand their impact on strategy implementation activities. This can be accomplished by looking to the practices followed by managers in their organisations.

The last objective of this study is to draw conclusions, make recommendations and create actionable knowledge, providing managers with tools to help them improve strategy implementation. This is achieved by forming an action plan that can be adopted by managers to help them enhance strategy implementation within their organisations using the IT factors that have greater impacts on strategy implementation. Here, the researcher transforms the conceptual knowledge residing in participants' experiences and minds into practical knowledge in the form of recommendations and an action plan.

1.2.2 Research Design

The researcher designed this research as an action research project that seeks action in practice in light of theory. The output of this research is an action plan that can be used by managers to help them improve their practice and work processes.

The research was conducted in two stages using a mixed methods approach that was both quantitative and qualitative. The first stage was quantitative; the primary tool used to collect quantitative data was a survey, with the goal of identifying the IT factors that have greater impacts on strategy implementation. The second stage was qualitative, in which the researcher conducted a set of interviews to analyse the IT factors identified as most significant. The objective of the interviews was to encourage the interviewee to draw on their experience in public organisations in Saudi Arabia and to speculate on things that help better the use of IT to produce better strategy implementation activities. However, these generalisations or actions are not statistically valid; they were stated frequently by most of the interviewed managers. Therefore, the interviews helped efforts to identify and collect actions required to capitalise on factors to enhance strategy implementation activities within public organisations in Saudi Arabia. Based on the analysis of the findings, a set of recommended actions was presented,

which may lead to improved strategy implementation and improved organisational performance. By following this plan, organisations can use a roadmap that may give managers more confidence in their decisions in choosing proper investments to implement strategies.

The research design consists of several constructs/variables. The dependent variables are strategy implementation effectiveness and organisational performance variables; while the independent variables are information technology (IT) factors and strategy implementation drivers.

1.2.3 Research Questions

In light of the above purpose and objectives, the following question guided the research activities:

How can we improve strategy implementation in Saudi public sector organisations using information technology (IT)?

This question is rooted in the values the researcher believes in. The researcher believes IT to be an enabler of business and not merely a supporter of it. Today, business without IT cannot compete in the market and will soon leave the competitive landscape. Moreover, IT is crucial to any public organisation to provide better services to its citizens. Moreover, the researcher believes that strategy implementation is an essential aspect of organisations that requires more attention from managers in public organisations. Although strategy implementation and planning are integrated, symbiotic and essential to one another, the researcher believes that strategy implementation is more crucial to public organisations than strategic planning.

Furthermore, the detailed questions this research intends to answer include:

- How can strategy implementation improve organisational performance?
- What drivers impact strategy implementation effectiveness in Saudi public sector organisations?
- What IT factors have greater impacts on strategy implementation effectiveness in Saudi public sector organisations?
- How can we use the identified IT factors to improve strategy implementation? What are the recommended practices and actions?
- How can we manage the change generated from adopting the IT factors' recommended actions and practices?

1.3 Research Context

The research was conducted using a set of dynamics and tensions that construct its distinctiveness from other similar studies. These dynamics stemmed from three perspectives: the country, the sector and the industry, which interact with one another and define the research level of complexity.

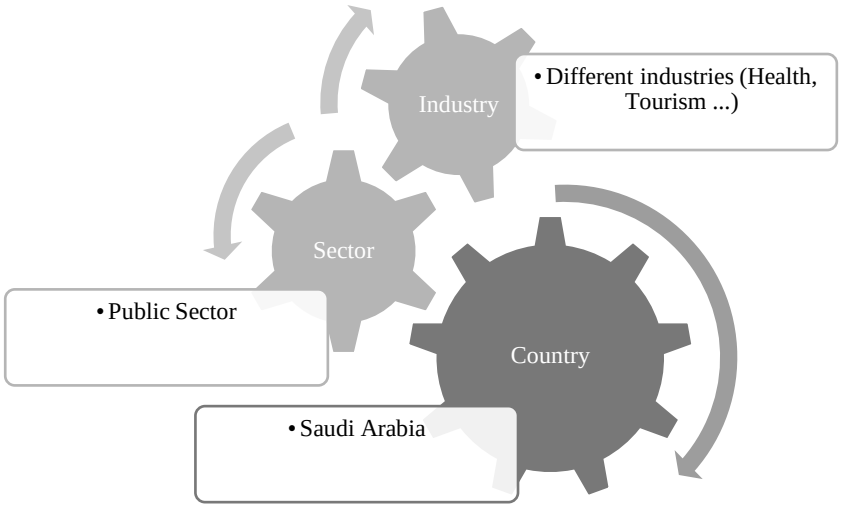

Figure 1-1 Research Context Perspectives

From the country perspective, the researcher conducted the study in a rentier state, Saudi Arabia, which depends on renting its natural resources as the primary source of income for its economy. Saudi Arabia is a Middle Eastern country and is part of the Gulf Cooperation Council (GCC). The economy of Saudi Arabia largely depends on producing and selling oil and other natural resources to feed its economy. Since 1970, the Saudi government's development plans have involved seeking to reduce dependency on oil and to increase other sources of income. Several analyses of the current state of the Saudi economy demonstrate that oil is still the primary and dominant driver of the economy, representing approximately 90% of the government's yearly budget. However, this is currently altering due to changes in oil prices and other changes in the country's leadership structure. Moreover, changes are occurring in the country's strategies in order to respond to current fluctuations in the international energy market. Thus, successful implementation of strategies is a crucial pillar in the country's overall vision of sustainable development and a stable market.

From the sector perspective, the researcher conducted the study within a set of public sector organisations. These sector perspectives, in dealing with management concepts, differ from those in the private sector. From another perspective, Saudi Arabia is a wealthy country that has enormous spending in this sector that has affected political life in the country and the

productivity of its people. The public sector is an essential driver of the country's economy and political life. Therefore, the implementation of strategies is vital in this sector, and the leadership of this country must focus on successful implementation strategies within this sector.

From the industry perspective, the researcher has interacted with various public organisations in different industries, such as health, utilities and services, to receive their input for this study. This variety has added a lens for viewing the research dimensions.

As a practitioner who spent more than 15 years working in Saudi Arabia in the public sector occupying different tenures—among them, consultant, operations manager, project manager and program manager—the researcher's experience has provided insights into practice that will help with critical reflection on the findings of the research. The researcher's experience adds value to the research and will lead to more robust findings.

Based on the discussion above, Figure 1-2 illustrates the research puzzle, along with the different dynamics that have been discussed.

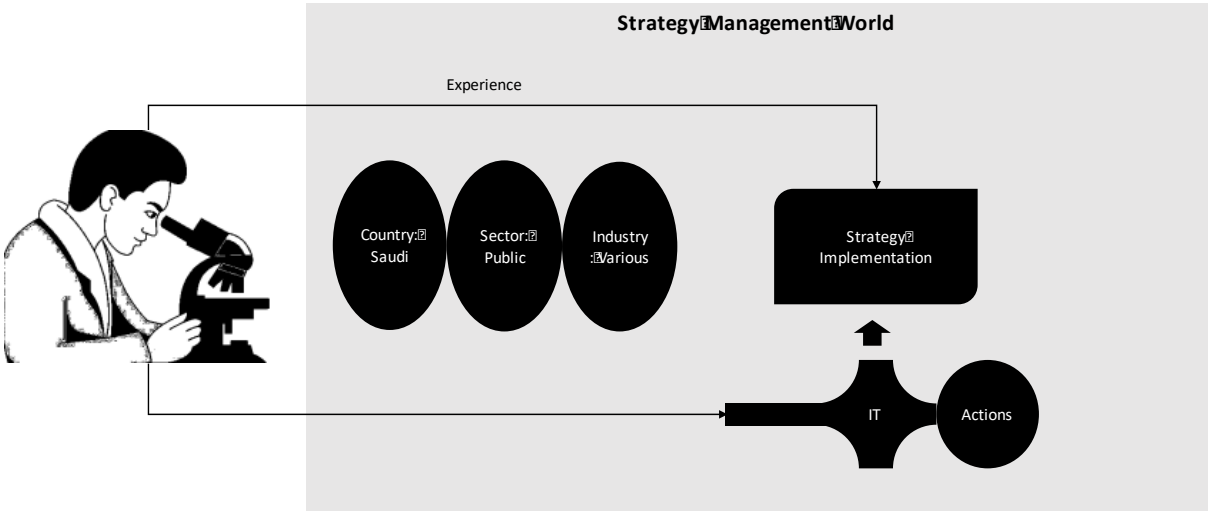

Figure 1-2 Research Puzzle

1.3.1 Saudi Arabia

Saudi Arabia is an important country in the Middle Eastern region and in the world. It is also a central country in the Islamic world as it is the location of the holiest sites in Islam (i.e. the cities of Makkah and Madinah), with millions of pilgrims visiting every year.

Furthermore, Saudi Arabia is one of the leading suppliers and sources of oil in the world, containing roughly 25 per cent of the remaining reserved oil on the planet. Additionally, the production of oil in Saudi Arabia is much less expensive than in other countries (Niblock,

2004). Saudi Arabia is a rentier state that depends on renting its natural resources to obtain its income. This has affected the political and social life in the country because people depend on the government—not the other way around (Auping et al., 2016). The income that stems from oil is the main source of the government's budget and the country's economy. Saudi Arabia seeks to utilise its current fortune to diversify the economy so that it is not entirely dependent on oil. Accordingly, since 1970, the Saudi government's development plans have involved seeking to reduce dependency on oil and to increase other sources of income. Unfortunately, several analyses of the current economic situation demonstrate that oil is still the primary and dominant driver of the economy. The government is still highly dependent on the country's oil income, which represents approximately 90 per cent of the budget (Albassam, 2015). This indicates that the implementation of the country's strategic development plans requires more attention from the government to achieve the vision of a diversified economy.

Recently, oil prices have been changing, with a significant drop to US $50/barrel—half the baseline projected for the coming years. Additionally, there has been a global trend towards pursuing other power resources, such as renewable energy. Moreover, the emergence of the shale oil industry in North America has disrupted the world oil market and introduced new rules. Thus, Saudi Arabian leaders are convinced that it is no longer possible to defend high oil prices. Consequently, in 2016, Saudi Arabia launched its Vision 2030 plan, which focuses on reducing the country's dependency on oil as well as unemployment (Salameh, 2016). The new vision and strategy for 2030 are intended to heal the economy and change the culture of the people to become more productive and be the core of the economy (Noël, 2016). Such tensions and changes in the country and in the world increase the importance of successful strategy implementation in Saudi Arabia to help the economy and its leaders in their reform efforts.

Islam has an influence on tradition and culture throughout the Middle Eastern countries. Moreover, aspects that have the greatest impact on Arab values and culture are Islam, foreign rule, tribes and Bedouin traditions and the international demand for oil. The impact degree varies across Middle Eastern countries. These aspects have a large impact on Saudi culture and traditions. Islamic values affect political, legal and business environments. Moreover, Saudi Arabia is the birthplace of Islam and the location of the holiest Islamic cities, Mecca and Medina. This leads to a sensitive political and social role to be played by Saudi Arabia in the Islamic world, which represents one-quarter of the world's population (Robertson et al., 2013).

Women are not as active as men, especially considering their unemployment rate, which is 27 per cent—four times higher than that of men. However, women in the business field in Saudi

Arabia are highly educated and have excellent skills in communication and innovation (Welsh et al., 2014).

Saudi Arabia has a developing economy and a diverse population of citizens and expatriates (Al-Somali et al., 2009). In Saudi, cultural and religious dynamics affect different aspects of organisational practices, such as human resources. As a result, the cultural issues affect organisational performance. Saudi culture in management practices focuses more on the group than on individuals, which places great importance on the relationships among the organisation's employees (Harbi et al., 2017).

As stated before, Saudi Arabia is leading the oil production industry in the world, which grants it a prominent position in world trading. Utilising this, Saudi capitalises on socioeconomic investment to provide high-quality public and private organisations to serve its people (Kattuah, 2013). Saudi population consists of 20.4 million citizens and 12.1 million expatriates. This population had a total labour force of 10.7 million in 2016, of which 1.2 million were in the public sector, including Saudis and non-Saudis (General_Authority_of_Statistics, 2017). Saudis prefer working conditions of the public sector and higher paying jobs. To overcome this issue, Saudi established causation (i.e. nationalisation) 20 years ago to move some positions in the private market to be available to only Saudis (Kattuah, 2013).

Oil was discovered in the Kingdom of Saudi Arabia (KSA) in 1938, which gave the Saudi government a revenue source to establish new international relations with other countries and transform its economy to one with high expenditure. Oil is the primary income for the Saudi government and represents 90 per cent of its total revenue (Kattuah, 2013). As a result, Saudi Arabia has one of the largest budgets in the world, with high expenditure. Table 1-1 shows the Saudi's budget data from 2013–2017.

Budget data

بيانات الميزانية

Actual Revenues & Expenditures for the Kingdom's Budget - 2013-2017 A.D (Million $)

الإيرادات والمصروفات الفعلية للميزانية العامة للدولة للسنوات 2013 - 2017 م (مليون دولار امريكي

Table 20 - 2

جدول 20 - 2

الفائض أو العجز	Expenditures المصروفات			Revenues الإيرادات			السنة Year
	الإجمالي	المصروفات الجارية	المصروفات الرأسمالية	الإجمالي	الإيرادات الأخرى	الإيرادات النفطية	
Surplus Deficit	Total	Current Expenditures	Capital Expenditures	Total	Other Revenues	Oil Revenues	
42,101	265,262	195,166	70,096	307,363	31,350	276,013	2013
-26,790	304,161	218,976	85,185	277,371	33,812	243,559	2014
-103,626	267,011	210,928	56,083	163,385	44,336	119,049	2015
-82,951	221,470	185,695	35,775	138,519	49,533	88,986	2016
-61,499	247,040	199,040	48,000	185,541	68,141	117,400	2017 *

Source : Ministry of Finance.

المصدر : وزارة المالية.

* Estimated data

*بيانات تقديرية

Table 1-1 The Kingdom of Saudi Arabia's (KSA) Actual Revenues and Expenditures 2013–2017

The gross domestic product (GDP) per capita for 2017 was 78,965 SAR. However, the GDP growth was -0.86 in 2017, which was a result of fluctuations in the oil prices as this is the central sector that feeds the country's economy (General_Authority_of_Statistics, 2017).

1.4 Feasibility and Motive

As mentioned, the researcher engaged in many activities regarding strategy implementation in several public organisations in Saudi Arabia. During this process, the researcher recognised that the implementation of strategies in this country faces several issues and obstacles. These issues, from his point of view, are rooted in the misunderstanding of strategy implementation and the lack of realisation of its importance in overall organisation performance. Moreover, and as the researcher has experience in the IT industry, he believes in the potential of IT to overcome these obstacles. Therefore, it is feasible to conduct this study to help managers and practitioners in the public sector in Saudi Arabia improve strategy implementation activities to improve performance.

The researcher worked for more than 19 years in different countries in the Middle Eastern region, and 15 of those years were in Saudi Arabia. The researcher worked in various industries, with a focus on the public sector. During this journey, the researcher interacted with different levels of management with assorted approaches to managing their organisations. Furthermore, the researcher has experienced various types of organisations—small, medium, large, well organised, loosely organised, those with a clear strategic direction, those that operate with no strategy and several others. Based on the accumulation of these experiences

and a review of the literature, the researcher noticed that several organisations failed to implement their strategies, even though the strategies were well established and detailed.

Moreover, this experience helped the researcher to obtain a better understanding of the public sector in Saudi Arabia and to gain several insights about the obstacles that face the strategy implementation practice in this country. Moreover, the researcher established a network of contacts from public organisations, which allowed him to conduct this research and to obtain more insights about the strategy implementation status quo in the public sector in the KSA. Additionally, the interaction between the researcher and the managers in these organisations provided the researcher with the input to formulate the research question and problem.

The management in public sector organisations in Saudi Arabia focus more on strategic planning activities than strategy implementation. These organisations fail to implement strategies for various reasons, such as unclear directions, lack of support from management, insufficient resources or unrealistic targets. The public sector leadership in Saudi Arabia is seeking to improve strategy implementation to respond to changes in the country's economy that affect government spending.

Moreover, as the researcher's educational background relates to IT, he believes that IT plays an essential role in transforming the way organisations do business and implement their strategies. The researcher encountered managers who still consider IT to be a support function that organisations can live without. The researcher believes IT is no longer a simple support function in organisations; on the contrary, it is a core function that is essential to running a business. Additionally, new trends in IT, such as big data, the Internet of Things (IoT), cloud computing and open data, impact all aspects of life, including how organisations and people do business. Likewise, the more an organisation adopts IT in its operations, functions and projects, the better chance it has to survive and compete in the market.

Based on these reflections and the researcher's values, he concluded that a need exists to improve the implementation of strategy in public organisations in Saudi Arabia, and this can be done by utilising IT capabilities. To address this need, the researcher undertook an action research study to explore different aspects of IT that affect organisations' efforts to implement their strategies. This research provides managers with recommendations and actionable knowledge on the IT factors with greater impact that must be taken into consideration and capitalised on to improve business strategy implementation and which may drive the organisation forward towards better performance. The action in this research can be viewed

from different angles; the first angle is related to actions that have been practised by managers in the public sector in Saudi Arabia using IT to improve strategy implementation activities within their organisations. The second angle is related to the study process of these actions, linking them to theory and coming up with action plans that can be followed by the managers in the strategy implementation field. The last angle is related to taking action in the researcher's own organisation by utilising the resulting knowledge to reshape his consulting products and services.

On a personal level, by conducting this research, the researcher seeks to enhance his learning in practice and gain, as a consultant, more insights into the IT factors with greater impacts on strategy implementation. The researcher will use this research to consider the resulting actionable knowledge in his consulting services and drive his firm's consulting business towards a focus on these factors, thus helping his clients better implement their strategies.

Lastly, this research is influenced by the researcher's culture and the society in which he is living. The researcher has been affected by the values, discourse and traditions of Middle Eastern society; he experiences life through several identities mandated by different contexts. These identities, which include practitioner, researcher and writer, must be balanced to succeed in life. Under the practitioner identity, the researcher works in the field of strategic management and strategy implementation; as a researcher, the researcher analyses, synthesises and reflects on the collected data; and using the writer identity, the researcher wrote this thesis to record these actions (McNiff, 2014). Therefore, as the researcher is using this identity in writing this study, he refers to hiself as "the researcher" (second person) when presenting his work and findings. Moreover, the use of "we" refers to the researcher and the reader of this study. Furthermore, the researcher was attempting to use the active voice more than the passive voice when possible.

1.5 Thesis Outline

This thesis consists of five chapters that follow the conventional thesis structure. The first chapter is the introduction, in which the researcher introduces the study and its various aspects to the reader and argues that IT plays an essential role in successfully implementing strategic activities. Additionally, the chapter addresses the research design and context from a holistic viewpoint. The chapter also addresses the research questions and the intended purpose and objectives of the research.

The second chapter is the literature review, in which literature related to the present research is discussed and different theorists' ideas and opinions are synthesised. The chapter is organised around shared patterns of thought in the literature. Furthermore, the reader is taken through a logical sequence of ideas, similar to the way museums take visitors through different sections using established walkthroughs.

The third chapter presents the research methodology. The research methodology and design are discussed in detail, and the different aspects of the knowledge the researcher aims to explore are addressed, including conceptual, practical and political knowledge. Additionally, the chapter presents the philosophical position adopted in conducting the research. Finally, the chapter discusses the quantitative and qualitative methods and how these methods are utilised to arrive at the research findings.

The fourth chapter presents the research findings and discussion. The findings are arrived at through the first and second stages of the research and, after applying the research methodology described in the preceding chapter, they are presented and discussed.

The last chapter is the conclusion of the thesis. This chapter links the findings with the theoretical foundation to arrive at conclusions in the form of an action plan and a change management plan. Furthermore, this chapter provides a future outlook on the research and opens the door to more research on the topic of strategy implementation.

2 Literature Review

Several public sector organisations in Saudi Arabia have failed to implement their strategies, even though they are well formulated. Although much research addresses strategic planning aspects of strategic management, much less research has focused on strategy implementation and its impact on organisational performance. In the Saudi public sector, much more effort is placed on strategic planning than implementation. Moreover, researchers and practitioners know little about the various factors that impact strategy implementation, such as IT. This chapter establishes the theoretical base of the research. Here, the researcher critically reviews the available literature on strategy implementation and its issues, with a focus on the research context, along with the factors that impact it, such as IT. The researcher will open the discussion between the different scholars on the assorted thoughts and attempt to link this to his experience and practice.

Numerous managers and business practitioners focus on strategy formulation over implementation (Srivastava et al., 2015), indicating that the contribution in the literature is more on strategic planning than implementation. A significant difference exists between academic resources related to strategic planning and those related to strategy implementation (Noble, 1999). A keywords search on the topics in search engines and academic databases reveals certain hits, as shown in Table 2-1.

No.	**Search Engine**	**Strategic Planning** ***[Number of hits]***	**Strategy Execution** ***[Number of hits]***	**Strategy Implementation** ***[Number of hits]***
World Wide Web Search Engines				
1.	*Google*	54,800,000	497,000	405,000
2.	*Bing*	9,570,000	595,000	779,000
Scholars Search Engines and Databases				
1.	*Google Scholar*	1,180,000	10,800	51,200
2.	*ScienceDirect*	39,873	443	2,899
3.	*CiteSeer*	74,869	1,972	15,084

Table 2-1 Results of Literature Search

Note: These results are correct as of 09 April 2016.

The readings from Table 2-1 support the view that a lack of strategy implementation research exists (Noble, 1999, Aaltonen, 2007). Moreover, research on strategy implementation is still in the early stages in the public sector (Andrews et al., 2017). Several scholars and practitioners in the field of strategic management have elucidated that strategy implementation is vital for the strategic success of organisations in achieving their objectives. Amjad (2013) and Albassam (2015) argue that management literature overlooks strategy implementation. Additionally, Amjad (2013) states that 70 per cent of strategic initiatives fail because they are not successfully implemented in organisations, even though they are successfully formulated. Leaders and managers in the public sector in Saudi Arabia have focused more on strategy formulation than implementation in the last four decades (since the 1970s), proposing several well-established strategies to make the economy less dependent on oil, but unfortunately, the Saudi economy still depends on oil because these strategies have failed in implementation (Albassam, 2015).

In the literature, this area of study—strategy implementation—has many aspects. In the following sections, the researcher attempts to illustrate the state of knowledge concerning the strategy implementation literature and to tease out the various themes and arguments that dominate the strategy implementation literature about this study, with consideration of local context, IT and its impact on this.

The following sections undertake a discussion of each of these themes and explore ideas and arguments of various scholars. The researcher engaged in the discussion in response to the literature and based on the implicit knowledge that he constructed from his practical experience.

2.1 Strategy Implementation

2.1.1 Strategy Implementation Models

The literature outlines several frameworks and models with which to manage the strategy lifecycle. While these frameworks and models address strategic management from different perspectives, they share a common objective: to help organisations implement strategies successfully. Moreover, adopting these models in public sector organisations is different than using them in those of the private sector (Ferlie and Ongaro, 2015)

Kaplan and Norton (2005) provide a model based on performance measurement. In their model, they address the importance of establishing an office to handle strategic management activities to improve the execution of strategy and to fill the gap between strategy formulation

and strategy implementation. This office plays a significant role in linking the implementation of a strategy with the organisational performance targets to ensure successful execution. In this way, management gains more control and real-time insights on the actual implementation of the organisation's strategy. Organisational performance means achieving strategic objectives (financial and non-financial) (Mankins and Steele, 2014, Micheli et al., 2011, Melville et al., 2004). Several scholars have focused on performance management systems and the balanced scorecard in their works. Burgess et al. (2007) suggest that most organisations prefer to use contemporary performance management systems, arguing that this preference is associated with the size and ownership of the organisation, whether it is foreign-owned, a joint venture or locally owned. Traditional performance measurement systems are based on financial measures; however, contemporary performance management systems are based on balanced measures, including, for example, learning, process and financial measures.

Notwithstanding, Sushil (2008) critiques the balanced scorecard framework and argues that the balanced scorecard, as a strategic management system, should cover other areas or perspectives beyond that which is currently covered (i.e. customer factors and internal and external processes). Silva and Hirschheim (2007) indicate that the implementation of strategic information systems, like the balanced scorecard, affects organisational performance and dynamics, particularly organisational values, control mechanisms and the distribution of power. Similarly, Rosenzweig (2014), in his book *Halo Effect*, emphasises the importance of execution in achieving business objectives. Rosenzweig (2014) argues that management often overlooks execution in favour of planning activities.

As discussed, private sector organisations have used the balanced scorecard model around the world and have harnessed the benefits of the model. Therefore, public sector organisations have begun using the model to manage their strategies after applying a few modifications to the model. The balanced scorecard helps public organisations assess their performance based on the organisation's established mission. This model must be modified to satisfy the nature of the public sector as the mission of the public organisation is seeking to achieve a public value; however, the private organisation is seeking to improve shareholders' value. Another distinction between this model in the private sector and public sector is the customer perspective, in which public organisations seek to serve their customers and satisfy their needs. In the private world, organisations are accountable to serve their shareholders (i.e. their capital providers) and to satisfy their financial targets. The other perspectives of the model—the

financial, internal processes and employee learning and growth—are all working to improve the outcomes for customers in order to achieve the organisation's mission (Niven, 2008).

In the public sector, there is pressure from society and a focus on the performance of the government. Performance is a key when considering whether this government is successful or not (Ferlie and Ongaro, 2015). In Saudi Arabia, due to tensions caused by the change in oil prices, along with the new leadership directions, the performance of government organisations and the government as a whole are currently the central themes of discussions in the country in the media and in governmental meetings. Therefore, the country's current strategy has been based on focusing on performance and measuring key performance indicators for each government organisation (Gazette, 2016).

To reflect on this model from the researcher's experience in practice, such models are complex and difficult to implement due to the different dimensions that must be covered. Therefore, such models must take the size and complexity level of the organisation into consideration when deciding which parts of the model will be applied. The researcher experienced the power of this model when applied to large organisations (more than 1000 employees) and difficulties when applied to small organisations. Additionally, the management mentality of those handling the model should be flexible as many things will alter during execution that may change the performance measures.

Porter (2008) emphasises the need for organisations to address five forces if they want to implement their strategy and compete in the market. These forces affect how they compete in the market and shape the organisational strategy accordingly. The five forces include: (a) competition with existing opponents in the market; (b) new players and entrants to the market; (c) the power of the organisation's suppliers; (d) other products and services that can serve as substitutes; and (e) customer power.

Higgins (2005) introduces another strategic management model, the Eight S's system, a revised version of Meckenzy's Seven S's model, which provides an organisation's senior management with the tools required to enact, assess and monitor strategy to ensure successful strategy implementation. The Eight S's include: (a) the strategy and the purpose of the organisation; (b) the structure of the organisation that supports the implementation of the strategy; (c) the systems and processes that monitor and control the implementation and map it to the organisational performance targets; (d) the style of management and leadership within the organisation; (e) the staff capabilities to ensure proper implementation of strategy activities;

(f) resources available for strategy implementation (e.g. IT resources, infrastructure); (g) the shared values that form and shape the organisation culture; and (h) the strategic performance, including defining the required targets. This model is comprehensive in covering several dimensions of the organisation. The eight aspects have various levels of impact on strategy implementation activities. Moreover, this impact is not the same for all organisations. The researcher has experienced several organisations in the public sector in Saudi Arabia that were impacted by one dimension over the other and that were impacted by different dimensions. Therefore, the researcher believes managers must examine all aspects of their endeavours to implement strategies to discover the one that has the greatest impact.

Kim and Mauborgne (2015), in their book *Blue Ocean Strategy*, present a different model with a radically new approach to strategy implementation by thinking outside of the box, creating new markets, targeting new customers and stimulating new demands. The blue ocean strategy model addresses how the critical mass of support for a strategy enhances the organisation's resilience and momentum and positively impacts strategy implementation activities. Kim and Mauborgne (2015) provide practitioners and organisations with the tools and methods required to traverse difficult markets, characterised by a high degree of competition, to 'a new blue ocean' (i.e. markets with new demands and more profits). Organisational management should aspire to change their way of thinking: rather than looking for new ways to compete within an existing market, they should look to create new markets in which there is no competition. Kim and Mauborgne (2015) use the analogy of a red ocean as a market space that is already near the saturation point, while a blue ocean describes a market space in which few industries have ventured. In a red ocean, competitors define the rules and boundaries and work to enhance their performance and operations to defeat their rivals. A blue ocean, however, is a new market space with high demand and opportunity to grow. The rules of the game in a blue ocean market differ, and competition is irrelevant.

It is difficult to apply these concepts to the public sector, however. Within their mandates, public organisations can define new spaces or markets to benefit the people. As an example, the ministry of tourism could introduce or refurbish a national site for their people to visit, rather than having them travel overseas. Saudi Arabia finds itself in a red ocean with the introduction of shale oil and other clean, renewable energy and must look for a new blue ocean to feed its economy.

Furthermore, Kim and Mauborgne (2015) argue that strategic planning should aim to move the organisation's focus from red to blue oceans to ensure more successful strategy

implementation. Organisations should take advantage of advancements in technology to improve their production output, thus leaving them with more supply than demand. Value innovation is another critical component of the blue ocean strategy, in which organisations provide more value to buyers by creating new market spaces. Currently, organisations build their strategies around differentiation in their products or by lowering the cost of their products. Organisations that build their strategies based on the blue ocean model, on the other hand, look for both low cost and differentiation solutions.

Moreover, this model describes a framework of six paths that define the boundaries of the blue ocean markets. The paths include: (a) looking across alternative industries that are not yet addressed by others; (b) looking across strategic groups within industries to seek innovative ideas; (c) looking across the chain of buyers, their problems and what they are looking for; (d) looking across what is offered in terms of complementary products and services; (e) looking across functional or emotional appeals to buyers; and (f) looking across time to see what developments have occurred in the past that may lead to blue oceans. The scholars also provide a set of eight principles, four for strategy formulation and four for strategy implementation. The strategy formulation principles involve reconstructing market boundaries, focusing on the big picture and not the numbers, reaching beyond existing demand and getting the strategic sequence right. The strategy implementation principles involve overcoming key organisational hurdles; building execution into the strategy; aligning the value, profit and people propositions; and renewing blue oceans (Kim and Mauborgne, 2015).

Saudi Arabia is seeking to open new markets and discover alternatives to oil to enrich its economy's basket of products. For this effort, in 2016 and 2017, it formed agreements with open markets, such as China, and attempted to attract large technology companies, such as Microsoft and Oracle.

Another vital model that addresses strategic management is the Hrebiniak (2013) model, which concentrates on strategy implementation. He called this model 'making the strategy work'. It is an integrative model or approach that combines various factors, decisions and actions that impact strategy implementation, along with the interactions between them. The 'making strategy work' model consists of several components. The corporate strategy component addresses the portfolio management process, business diversification and the allocation and distribution of resources within a business. The corporate structure component tackles how to choose the correct structure, either centralised or decentralised, to facilitate successful strategy implementation. The integration component addresses the coordination of the methods

between the various units in the organisation. The business strategy component involves a focus on the products and services that the organisation provides to its customers, ensuring the most efficient mixture of resources, skills and competencies and doing what is required to compete in the market and to achieve profits and a competitive advantage. The business structure and integration component aligns the business structure with the business strategy and covers the sharing of knowledge and coordination between various business units to facilitate the implementation of the strategy. Moreover, the last component—incentives and controls—addresses the incentives required to enhance performance and the proper controls to measure performance and provide feedback. This model is unique as it focuses on strategy implementation and covers all organisation components from a strategy implementation point of view.

The discussed models are distinct when used in the public sector organisation as the mission of the organisation and its strategy are to create value for the public, and the focus of their work is to serve their customers and satisfy their requirements. However, in private sector organisations, the mission is to improve the financial results and to satisfy the requirements of their capital providers ((Niven, 2008). In Saudi Arabia, more focus is placed on models that concentrate on measuring the organisational performance for public organisations and how to unify all efforts and resources towards improving the performance by improving strategic implementation activities (Fattouh and Sen, 2016).

2.1.2 The Gap Between Strategic Planning and Implementation

Noble (1999) confirms both that a lack of strategy implementation research and a lack of diversity of perspectives exist in this area, concluding that successful strategic planning and strategy implementation are both necessary to facilitate improved organisational performance. Moreover, Alexander (1989) indicates that the focus of research is on strategic planning, even though strategy implementation is a critical part of strategic management.

Lindøe Pedersen (2009) postulates that two main reasons exist for the gap between strategic planning and implementation. These reasons include the strategy execution process architecture and strategy execution lock-in effects or syndromes. Organisations must have a well-defined structure for the strategy execution process—a method to institutionalise the process and safeguards in place to fill the gap and avoid strategy execution syndromes. Strategy execution is the layer between strategy implementation and strategic planning. Strategy execution resides within the tactical domain of the organisation, whereas strategy implementation resides within the operational domain. Strategy implementation concerns the

actual actions of conducting the plan, whereas strategy execution primarily concerns coordination, communication, resource allocation and translating and managing the strategy into an implementation process. Strategy implementation involves transforming and translating strategic objectives into results. In doing so, the focus of managers tends to be on strategy formulation more than implementation (Srivastava et al., 2015). Hrebiniak (2008) indicates that implementing strategy is more challenging than formulating it. Implementing strategy takes time and involves many more people than strategy formulation. Additionally, organisations must balance between centralisation and decentralisation in establishing their organisational structure to achieve their strategic objectives.

Furthermore, strategy implementation activities aim to initiate a strategic change in the organisation to provide better service or to improve performance. However, for an organisation to implement the strategy, several changes may need to occur. For example, it may be necessary to restructure the organisation and to change the organisation's offerings and services. Today, with rapid changes in society due to exponential technological development, strategic change is essential for organisational continuity in the market. Therefore, adopting change based on strategy implementation is crucial to both the strategy itself and the organisation.

Various scholars agree that strategic change is crucial to the success of the organisation. Krishnakumar (2015) and Montgomery (2008) indicate that strategic change must be rapid to compete in the market. The strategy is not only an idea or plan; it is a way of life that an organisation should live by. The strategy is not a rigid activity with defined steps; on the contrary, it is a dynamic process.

Kaplan and Norton (2006)—who established the balanced scorecard framework that aligns the structure of the organisation with strategy from four perspectives: financial, customer, process and learning and growth—insist on the importance of strategic change. Kaplan and Norton (2006) claim that organisations must change their structures to implement their strategies successfully. Organisations should focus their structure on their functions, products, geography or processes. A change in an organisation's structure due to changes in the competition and the market leads to changes in strategies and objectives.

The prevailing view in management, especially in hierarchical organisations, is that managers are innovative people who are responsible for strategic planning, which they then hand over to lower-level employees to implement. Hrebiniak (2013) argues that representatives from all levels throughout the organisation should participate in strategic planning efforts. The

probability of successful strategy implementation is higher when the planners and doers are engaged in the implementation process together and two processes—formulation and implementation—overlap.

Currently, in the public sector in Saudi Arabia, more attention from public managers and leadership is placed on implementing the strategies in real life that result in better services for their citizens (Gazette, 2016).

2.1.3 Strategy Implementation Problems

Several barriers prevent organisations from implementing their strategies successfully. These barriers represent weaknesses in the organisation that managers must address. Lindøe Pedersen (2009) describes organisations as human organisms, capable of becoming diseased, which negatively affects how the organisms act and behave. Organisational diseases or syndromes can negatively impact how organisations act and implement their strategy (Lindøe Pedersen, 2009). Managers must be cautious of these syndromes and not only focus on the technical aspects of strategy implementation. Such syndromes include: motivation syndrome, underperformance syndrome, resistance syndrome and groupthink syndrome.

Sharing information within an organisation is crucial for executing the strategy activities. Poor information sharing mechanisms represent an obstacle to strategy implementation. Van Donselaar (2012) states that inadequate or poor information sharing between employees and between organisational departments is a strategy implementation obstacle. Technology plays a significant role in sharing information within organisations and facilitates its exchange.

Problems with strategy implementation often lead to problems with organisational performance. Hrebiniak (2006) describes several obstacles to strategy implementation, such as managers knowing about and receiving more training on strategy formulation than they do on implementation (their education is focused more on planning than implementation) and management believing their role is to plan—that planning is innovative work that requires more creativity than implementation, whereas other employees perform implementation tasks. Another obstacle is that managers consider strategic planning and strategy implementation to be two separate components of the strategic management process, not understanding that they are interdependent. Another obstacle is that strategy implementation takes much more time than planning, and many things may change during the implementation process that managers might not take into consideration during planning. Finally, the amount of people both inside and outside the organisation required for implementation is an obstacle that warrants a great

deal of communication. Hrebiniak (2013) returns to obstacles in his more recent book. He reports that there are other obstacles to strategy implementation, such as unclear or ambiguous strategy, ambiguous responsibilities, a lack of ownership and a lack of understanding of organisational structure and roles. Furthermore, he emphasises his earlier point that managers know more about planning than they do implementation, which creates many problems for strategy implementation.

Čater and Pučko (2010) believe that one leading strategy implementation obstacle is improper leadership. Leadership is crucial in ensuring that strategy implementation activities are performed in alignment with the strategy. Additionally, they argue that strategy implementation is more laborious than formulation and that there is no well-established body of knowledge for strategy implementation. Čater and Pučko (2010) studied the strategy implementation activities of 172 Slovenian companies, aiming to identify the implementation obstacles that these companies encountered along the way. The investigators found that the main strategy implementation obstacle was poor leadership. They also found that aligning the organisational structure with the strategy had a positive impact on strategy implementation activities and organisational performance.

Alexander (1989) conducted a study by surveying 93 private organisations (72 per cent of them were listed in the Fortune 500), and he listed the 10 problems that were faced by these organisations during strategy implementation. These problems included: strategy implementation consumed more time than initially planned, coordination of implementation activities was not adequate or efficient, employee capabilities of those involved in the implementation did not satisfy the requirements, external environmental factors impacted the implementation activities, major implementation activities were not adequately detailed, problems were raised during the implementation that had not been defined earlier, other activities gained more attention than strategy implementation ones, no adequate training existed for lower-level employees, no adequate leadership or direction existed, and, lastly, no adequate information systems monitored the strategy implementation activities.

In summation, strategy implementation is already a challenging task that becomes more challenging due to certain obstacles. Managers must recognise and understand these obstacles to manage them using appropriate tools (e.g. technology) in the correct way. The researcher has engaged with most of the mentioned obstacles in his practice. However, the researcher believes the most important one is difficulty sharing information about strategy and the objectives that the organisation wants to achieve.

2.1.4 Governance

This study took place in the public sector in a rentier state, so governance is an essential player and a necessary ingredient in the strategy implementation formula. Regardless of which tools are available for enhancing the implementation of the organisation's strategy, without the correct governance framework, the intended results of the implementation are unlikely to emerge. Organisations must realise the importance of governance in successful strategy implementation. Subsequently, many organisations have a position specifically intended to support strategy implementation: the chief strategy officer (CSO). Breene et al. (2007) believe the CSO ensures the strategy is implemented and communicated across the strategy ecosystem and that the decision-making process is aligned with the strategic objectives. Additionally, they argue that the CSO is not a strategist or necessarily a skilled strategic planner. The CSO is an executive responsible for the implementation of the strategy. A successful CSO should focus on three organisational horizons: core business in the short term, emerging business, and long-term options, with attention paid to two areas that are essential to strategy implementation: IT and human resources.

Kaplan and Norton (2005) also address the governance perspective of strategy implementation. They argue that most organisations fail to implement their strategies as several sources report that organisations have strategy implementation failure rates from 60–90 per cent. Therefore, for successful strategy implementation, organisations should align their key management processes and create specialised organisational units, such as an office of strategic management (OSM) to focus on strategy implementation. Kaplan and Norton (2005) describe the following core processes for the OSM:

- Scorecard Management: The OSM is responsible for maintaining the organisation's strategy scorecard and reporting the performance to management.
- Organisational Alignment: The OSM ensures a consistent view of strategy and ensures alignment between organisational activities and strategic objectives.
- Strategy Reviews: The OSM should have periodic meetings with all concerned parties to review the progress of strategy implementation and to recommend strategic adjustments.
- Strategic Planning: The OSM should participate in strategic planning activities. Strategy formulation and implementation are linked activities. Many activities occur

during this process, such as scenario planning, annual meetings and competitive analysis, which have an impact on strategy implementation activities.

- Strategy Communication: The OSM ensures that the strategy is communicated to employees and other stakeholders, along with scorecards, measures and strategic targets.
- Initiatives Management: The OSM guarantees that cross-functional initiatives are coordinated and managed.
- Planning and Budgeting: The OSM links the organisation's strategy with the budget, human resource planning, IT and marketing plans.
- Workforce Alignment: The OSM aligns employee development (such as compensation and leadership development) with the strategy.
- Best Practice Sharing: The OSM generates ideas from different departments to improve strategic outcomes.

Kaplan and Norton (2005) insist that the OSM is more likely to be effective if he or she reports directly to the top of the organisation, the chief executive officer (CEO).

Another governance tool Gadiesh and Gilbert (2001) suggest is the strategic principle, which is helpful in providing an organisation's employees with a clear strategic direction but with the flexibility for them to innovate and take risks. The strategic principle summarises and distils an organisation's whole strategy into a memorable phrase that is communicated to all staff within the organisation. It unifies the language within the organisation and aligns it with the strategic objectives. The strategic principle acts as a point of reference for actions taken to ensure they have strategic depth.

As IT is an essential parameter in the strategy implementation equation, IT governance has a role in strategy implementation as well. Nolan and McFarlan (2005) argue that an organisation's board of directors should have IT policies for governing technology investment to meet the intended strategic objectives. Organisations should have an IT governance committee responsible for organisational IT decisions to reduce IT risks and to enhance the competitive advantage and overall organisational performance. The objective of IT governance is to leverage the optimal usage of IT to enhance the organisation's efficiency and productivity. As IT governance is crucial to the organisation's strategy implementation, the chief information officer (CIO) may report to the CEO or chief financial officer (CFO), and such

reporting structures should be used to specify the importance of IT within the organisation (Banker et al., 2011, Xue et al., 2008, Raghupathi, 2007).

2.1.5 Innovation, Agility and Openness

Openness is an essential aspect of strategic management that improves the implementation of strategy activities and opens the door to innovative ideas. Openness involves radically democratising the strategic management process and decision making to achieve better results by initiating the correct strategy implementation activities. IT supports, participates in and facilitates strategy openness and innovation. Chesbrough and Appleyard (2007) acknowledge the importance of strategy openness, and they differentiate between the business strategy, which involves product choices for product line management, and corporate strategy, which involves the choices for the organisation to compete in the market. Openness involves making knowledge available to others to stimulate innovative ideas. Contributors have full access to the ideas of others, and no one person or department has an exclusive right over the innovative output of this process.

Several other scholars support the idea of openness and innovation in enhancing strategy implementation within organisations. These scholars have introduced ideas, such as reverse innovation, which refers to innovating new products and services in developing countries, such as China and India, before distributing them globally. They suggest that having a global strategy to address interdependence and exploiting it for competitive advantage are essential (Immelt et al., 2009, Yaprak et al., 2011).

Resources are the main components of innovation in organisations. The resources-based view (RBV) theory proposes that organisations can provide value and compete with their rivals through rare, unique and valuable resources that are difficult to sustain. According to the RBV theory, resources can be tangible (e.g. equipment and raw materials) or intangible (e.g. skills and brands). Competency involves a combination of organisational resources necessary for creating organisational ability. Information system competencies, such as knowledge management, project management, business and IT alignment and governance, can impact the innovation process, conceptualisation, development and implementation (Tarafdar and Gordon, 2007).

Agility is an essential concept for contemporary organisations to ensure faster innovation and competitive performance. IT plays a significant role in organisational agility due to its involvement in the processes of knowledge and communication. Several scholars argue that

organisational investments in IT capabilities provide digital options and agility that help companies in their strategy implementation efforts. IT capability is the ability of organisations to gain, deploy, merge and reconfigure their IT resources to support and improve business processes and strategies. IT capability plays a significant role in making organisations more agile (Lu and Ramamurthy, 2011, Sambamurthy et al., 2003). Weill et al. (2002) believe that having the appropriate IT infrastructure provides a faster way to increase growth and sales for new organisations. However, to have strategic agility, the correct balance of investment in IT infrastructure is required. From another side, Schwartz and Zozaya-Gorostiza (2003) discuss the return value of IT investment concerning an organisation's agility and innovation. They indicate that despite two decades of massive investments in IT projects, a high degree of uncertainty still exists. Consequently, Schwartz and Zozaya-Gorostiza (2003) introduce the real options approach, which is a tool that helps managers decide on and approve of such projects and investments. Based on the real options approach, IT investments projects can be classified by way of two models: developing IT assets to be sold to another party and involving the acquisition of IT assets from other parties. Managers must choose between these two models based on their strategic choices and objectives.

2.2 The Research Building Blocks

Organisations have two kinds of strategies: corporate and business. The corporate strategy is written for the entire organisation and describes how the leaders perceive the organisation in the future. In contrast, business strategy defines the objectives for a specific business line within the organisation and concentrates on how to compete in the market now and in the future. The corporate strategy defines the objectives the firm is seeking to achieve from different perspectives: processes, financial, human resources and others, whereas the business strategy defines the game plan in the market and how the firm can differentiate itself from its competitors. Strategy implementation is vital for the strategic success of organisations in achieving their objectives. Amjad (2013) and Albassam (2015) argue that strategy implementation is overlooked in the management literature. Additionally, Amjad (2013) states that 70 per cent of strategic initiatives fail because they are not successfully implemented in organisations, even though they are successfully formulated.

The researcher has worked in the strategic management practice for a long time; the researcher began with several insights rooted in his experience and interactions with practitioners in the field. Based on these insights, the researcher constructed a simple model that derived the research. This model is supported by the available literature in the following sections.

Okumus (2003) and Foreman and Argenti (2005) discuss the relationship between strategy implementation and organisational performance and confirm the impact of strategy implementation activities on achieving better organisational performance. This concept supports and confirms the importance of strategic management for organisations and its competitive advantage in the market. However, by exploring the available literature, it seems that studies to date have not collected sufficient data on the impact of strategy implementation on organisational performance. Several scholars confirm that a lack of empirical studies exist in the literature that link strategy implementation with organisational performance (Elbanna and Fadol, 2016, Radomska, 2014, Andrews et al., 2011).

Several drivers impact strategy implementation, such as human resources, organisational culture, communication and technology (Fishman, 2009). The degree of impact of these drivers on strategy implementation activities varies and also depends on the degree of the organisation's complexity. However, in this study, the researcher focused on one factor, namely technology and, specifically, IT. Therefore, the researcher centred on the IT driver and decomposed it into factors, such as information systems and IT training (Foreman and Argenti, 2005).

The central block in the proposed model is the IT, which is the focus of this study, along with its constituent factors. Furthermore, the study addresses the degree of impact of IT factors on strategy implementation effectiveness and how this will impact organisational performance accordingly. Figure 2-1 summarises this and describes the main research building blocks.

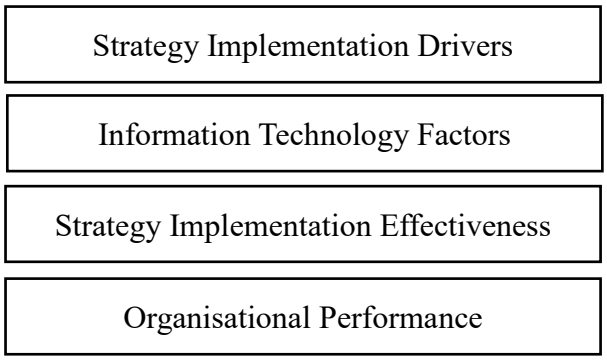

Figure 2-1 The Research Building Blocks

The building blocks will be further detailed in the next sections. For instance, examples on drivers include staff who understand the organisation's strategy, clear strategic directions, alignment between human resources goals with the organisation's strategy and IT.

Using IT in different aspects of the organisation can increase the opportunity for successful implementation of an organisation's strategy and can improve other aspects of the organisation, such as the organisational culture, its communication and its administration. Moreover, IT plays a significant role in enhancing customer relationships management activities and the services provided to customers using automated systems, such as help desks and customer relationship management (CRM) systems. IT can lead to enhancements in overall organisational performance (Chung et al., 2012).

2.3 Strategy Implementation Effectiveness and Organisational Performance

Several studies address various perspectives of strategic management in public organisations, such as strategic processes, strategic content, the relationship with the external environment and internal organisational management practices. However, few studies have addressed the perspective of the influence of strategy on organisational performance (Walker, 2013). Moreover, Elbanna and Fadol (2016) indicate that a potential impact is made on organisational performance by strategy implementation. Additionally, Andrews et al. (2011) point out that a lack of empirical research exists that links strategy implementation to organisational performance.

Andrews et al. (2011) argue for the relationship between strategy implementation and organisational performance. For improved organisational performance, an organisation's management must incorporate the strategy implementation style (e.g. rational, incremental or no clear approach) with the strategic direction of the organisation (e.g. defender, prospector or reactor). The rational approach to strategy implementation is to have a logical sequence in the strategic management process, beginning with strategy formulation, and then move on to strategy implementation. The incremental approach to implementation involves engaging with implementation activities while simultaneously formulating the strategy. Alternatively, one might leave strategic management deliberately ambiguous regarding either the formulation or implementation. Notwithstanding, an inconsistent or changeable approach to strategy implementation can result in poor performance due to the lack of clear direction and conflicting priorities. Moreover, adopting a mostly rational implementation style and logical–incremental style in implementing strategies in public sector organisations will improve effectiveness, equity and efficiency, improving organisational performance in the public sector (Andrews et al., 2017).

Ho et al. (2014), however, take the discussion on the relationship between strategy implementation and organisational performance in another direction with the addition of an employee performance dimension. Ho et al. (2014) suggest that a consensus between employees and their operational level managers on strategy implementation activities are positively related to measures of employee performance. Employee performance measures align managerial and employee incentives with the organisation's strategy, thus motivating them to perform according to the organisation's goals and objectives.

Other scholars, however, have sought to gain a deeper understanding of organisational performance issues themselves. Mankins and Steele (2014) indicate that based on organisational strategies, only 63 per cent of financial targets are achieved by organisations. Accordingly, this shows that a gap exists between the strategy and its targets, as measured by financial performance. The actual reasons behind this gap and the low performance are not always immediately apparent to the organisation's management. Consequently, management may react inappropriately to this gap. In response to low performance, management might look to change the strategic direction of the organisation; this could be disastrous when the actual problem concerns implementation issues. A mistake of this magnitude could contribute to further deterioration in organisational performance. Some possible causes of organisational underperformance include problems in planning, implementation or both.

Mankins and Steele (2014) surveyed various organisations and found several issues with organisational performance, such as organisations without mechanisms for tracking long-term performance. In other words, they do not compare their current performance status with their forecasted performance about their strategy. Another issue is that long-term strategies that span multiple years do not meet their targets and performance expectations.

Kim and Mauborgne (2015) provide some analytical tools with which to manage implementation to improve organisational performance. They argue that when employing the blue ocean strategy, managers should focus on minimising risks and refrain from taking risks. One of the tools that they provide is the strategy canvas, which is a tool used for formulating a blue ocean strategy. This tool provides an organisation's management with an overview of the current state of the market and a more unobstructed view of the competition. Managers use the strategy canvas to shift the focus from competitors to alternatives and from customers to non-customers. This shift in thinking provides insights into the strategic game that managers must play and allows them to redefine their problems. Based on the strategy canvas, adding value to the organisation at a lower cost is possible by utilising the four actions framework. This

framework looks at the factors in the strategy canvas by eliminating some, reducing others and raising or creating new ones. Managers then plot these in an eliminate–reduce–raise–create grid, thus aiding their analysis.

Hrebiniak (2013) defines 'implementation' as a set of interconnected logical activities and a disciplined process that facilitates an organisation's aim of making their strategy work. He confirms that strategy implementation is crucial to organisational performance. Implementation of strategy is a set of actions and decisions—a process that is taken over time to improve the overall performance of an organisation to compete in the market.

2.4 Drivers Impacting Strategy Implementation Effectiveness

To close the gap between strategy and performance and identify the drivers that impact the strategy implementation effectiveness, Mankins and Steele (2014) offer managers seven rules. Firstly, the objectives and targets contained within the strategy should be clear and concrete. Secondly, strategic forecasts must be based on the organisation's strategy, as developed by the management, and should be considered well ahead of any forecasts. Thirdly, a unified and robust framework must be established to create a common language between all staff. Fourthly, resource distribution and levelling should be addressed and managed at an early stage. Fifthly, a list of strategic priorities must be defined, agreed upon and communicated to everyone in the organisation. Sixthly, a precise mechanism or methodology to track organisational performance should be defined. Additionally, performance should be carefully scrutinised. Lastly, execution capabilities should be developed within the organisation to ensure the success of strategy implementation, and achievement of strategic targets should be rewarded.

Sabourin (2015) identifies five drivers that impact strategy implementation and organisational performance. These drivers should be taken into consideration by management when executing their strategies. The first driver is the rules that address how to clarify and align the organisation's objectives with its activities and its employees. The second driver is the emotions of the employees who will do the work; if they are emotionally linked to the organisation's strategy, implementation is more likely to be successful. The third driver is the initiatives that translate the strategic objectives into projects and programmes. With this driver, the organisation's management defines the projects required to implement the strategy and provide the necessary resources. The fourth driver is immediate action because even well-established organisations with clearly defined strategies can suffer from urgent circumstances that demand a prompt response. This driver addresses how to face these urgent circumstances.

The last driver is the integrity; this is about ensuring cohesive implementation and addresses how to execute objectives in an integrated manner consistent with the organisation's values. Sabourin (2015) uses the human body as a metaphor to describe these drivers. The rules are the head, the emotions are the heart, the initiatives are the arms, the immediate actions are the feet and the integrity is the soul.

Schaap (2012) explores the relationship between effective leadership and strategy implementation in the casino industry. Schaap (2012) found that effective communication across all organisational levels improved strategic consensus that is necessary for enhancing strategy implementation. Using a questionnaire as the primary research instrument, the researcher sampled 890 senior managers from the Nevada casino industry. Other empirical studies were conducted to address strategy implementation from different perspectives, including McAfee (2002), Dedrick et al. (2003), Kohli and Devaraj (2003), Lu and Ramamurthy (2011), Yeh et al. (2012) and Amjad (2013).

2.5 The IT Impact on Strategy Implementation Effectiveness

2.5.1 Strategic Role of IT in Organisational Performance

Today, IT plays a significant role in all aspects of an organisation and is vital to providing an organisation with a competitive advantage in rapidly developing markets. The existence of CIO (Brenes et al.) positions in organisations today confirms the importance of IT in organisations (Brenes et al.). Yayla and Hu (2014) state that IT powers global markets, thus underscoring the importance of CIOs in strategic roles and their impact on strategic decision making. Organisations whose board of directors are acutely aware of the importance of IT also tend to have overall positive organisational performance. Furthermore, this awareness impacts the compensation of the CIO. The impact of IT awareness on organisational performance is more substantial in IT-intensive industries. As organisations realise the importance of IT and its crucial role in competitive advantage, IT executives are increasingly joining senior or executive management teams. In this way, organisations ensure they have the best alignment between IT and the organisation's business strategies.

IT refers to the use of computers, telecommunications and storage to create, store, secure, process and disseminate electronic information (Drnevich and Croson, 2013, Karimi et al., 2007). Today, IT is no longer a standard function that provides supportive services to other core business functions in organisations. On the contrary, IT is an essential strategic arm for organisations; it enables businesses to operate and is an essential ingredient in their competitive

advantage. IT is crucial to running any business efficiently and speedily. Indeed, new ideas and trends in IT (such as big data, the IoT, cloud computing and open data) are changing the entire concept of organisations and how they do business and provide their services. Technology impacts many aspects of society, such as structure, culture, manners and lifestyle. As organisations adopt IT in their work (i.e. operations, functions and projects), they are better able to survive and compete in the market. Therefore, IT plays a significant role in the strategy implementation game and can help organisations successfully implement their strategies (McAfee, 2002).

Melville et al. (2004) discuss IT and its impact on organisational performance, arguing that uncertainty exists about the role of IT and its contribution to organisational performance. IT is crucial to running a business; however, the extent of its importance depends on various internal and external organisational factors, such as the organisational structure, type of IT adopted by the organisation, management practices and competitive environment. Melville et al. (2004) examine the business value of IT, which is represented by the extent of IT application in the organisation that impacts the organisational performance. This impact of IT on the business and organisational performance can take several forms, such as reducing costs, increasing profits and improving productivity. Strategy researchers use the RBV, which looks to all aspects of the organisation from a resource perspective in order to analyse the competitive advantage of IT and its impact on improving overall organisational performance.

Several other scholars support the notion that having IT capabilities improves organisational performance. Additionally, other factors that positively affect those capabilities, such as organisational learning, impact organisational performance. So having superior IT improves organisational performance, meaning that the organisation will perform better than other organisations. In other words, the average ratio of profits will be higher, and the average ratio of costs will be lower (Tippins and Sohi, 2003, McAfee, 2002, Santhanam and Hartono, 2003).

Mithas et al. (2011), on the other hand, indicate that information management capabilities can play a significant role in other capabilities, such as process management, customer management and performance management. These capabilities impact organisational measures, such as financial and human resource measures, which improve organisational performance. IT is the leading enabler of information management capability and plays a crucial role in building such capability within organisations. IT is like a wave that spreads across all organisational capabilities to improve organisational performance.

In light of the above facts—and as technology becomes increasingly ubiquitous and plays a greater role in improving organisational performance and impacting competitive advantage—Lee and Grewal (2004) state that organisations must respond strategically to the emergence of new technologies in the market to maintain their competitive advantage. Otim et al. (2012) examine the impact of IT on organisational performance. They recognise the impact of IT through downside risks and address how strategic IT investments reduce this, which they consider to be an alternative measure of organisational performance.

Several other scholars discuss the strategic role of IT on organisational performance. Ray et al. (2005) indicate that IT plays a significant role in enhancing customer service performance, thus improving overall organisational performance. Pavlou and El Sawy (2006) suggest that as turbulence increases in the organisational environment, the strategic role of IT in the organisation becomes essential and obvious. Aral and Weill (2007) argue that IT provides organisations with capabilities that improve organisational performance. Karimi et al. (2007) argue that IT plays a significant role in the development of enterprise resource planning capabilities in an organisation, which has ramifications for performance. Oh and Pinsonneault (2007) confirm that IT is a strategic resource that, in combination with other strategic resources, plays a role in improving organisational performance.

Al-Aboud (2011) emphasises that IT plays a vital role in successful organisational planning activities. Strategic information system planning (SISP) is essential for organisational success regarding market competition. SISP enhances strategic planning activities through the use of technology. Aligning IT with strategic planning activities will improve organisational performance. Using the IT to realise the strategy is considered SISP.

Lastly, Kane et al. (2015) argue that maturing digital businesses concern the integration of technology with business and the way in which this integration transforms the way that the organisation performs its work. Digitally mature organisations build their employees' skills as necessary for realising the organisation's strategy. The lack of strategy is the main obstacle for increasing the organisation's digital maturity. Kane et al. (2015) conducted a survey with 4,800 executives and managers across diverse industries in several countries, including the US, India, Mexico, Brazil and others. Seventy-six per cent of respondents said that technologies were important in their organisation's business. Organisations use technology to improve their customer service and efficiency. However, highly digitally mature organisations use technology to transform their business and improve their competitive advantage. Sixty per cent

of the respondents strongly agreed that technology could transform their way of work, while 82 per cent saw technology as an opportunity for their business.

2.5.2 Alignment Between Business Strategy and IT Strategy

Organisations today realise the crucial role of IT in implementing their strategies and making their businesses sustainable. Nonetheless, other strategies exist under the umbrella of corporate strategy that might benefit the different processes that organisations provide. Organisations should align their IT strategy with their business strategy to achieve their intended results and achieve the best utilisation of IT and its impact on business.

Many scholars support the importance of this alignment between IT and business strategies. Additionally, investing in IT and software development can generate more opportunities for businesses. Such investments can provide organisations with more capabilities to support their business strategies by reducing costs, enhancing production and other contributions. Information systems can positively impact the implementation activities of strategy. For organisations to compete in their marketplace, they should always align their information systems with their competitive strategies. Organisations should always ensure the best fit between their competitive strategies and information systems (Asato et al., 2011, Zubovic et al., 2014, Yeh et al., 2012, McLaren et al., 2011).

Bharadwaj et al. (2013) explore the alignment between IT and business strategies from a different perspective. They say that in past years, the dominating view has been that the IT strategy is a functional level strategy that must be aligned with the organisation's business strategy. In other words, the business strategy should direct the IT strategy. Businesses are increasingly affected by IT, especially within the last 10 years. Business infrastructure is becoming increasingly digitalised regarding linking products, processes and services within organisations. Therefore, IT strategy is no longer directed by the business strategy. The IT and business strategies should be merged under one umbrella: a digital business strategy. Bharadwaj et al. (2013) indicate four surrounding digital business strategies: scale, scope, speed and sources.

Drnevich and Croson (2013) agree with Bharadwaj et al. (2013), insisting that IT should be an integral part of the business strategy because it is crucial for businesses to be successful. IT helps businesses create value, thus providing benefits to their customers. IT can enhance an organisation's current non-digital capabilities and introduce new digital capabilities. To measure the impact of IT investments on organisational performance, Drnevich and Croson

(2013) suggest that it should be connected to the mechanisms that organisations use to generate profits.

Woodard et al. (2012) agree with the importance of integrating IT and business. However, they indicate that the digital business strategy fusion between IT and business raises tensions between investing in the digital artefacts for the long term and having the value of digital capabilities in the short term. This debate requires further investigation by scholars to clarify the time dimension of this integration. However, Mithas et al. (2013) argue that organisations with developed digital business strategies tend to struggle to converge market and industry norms and often find themselves diverging from those norms altogether.

Kohli and Devaraj (2003) suggest that IT investments enable businesses and enhance their performance and competitive advantage. Several scholars claim that a strong relationship exists between IT investment and its impact on organisational performance. Low-performance organisations are characterised by their misalignment between strategic planning, implementation and IT. These concepts find support in strategic management and management information system (MIS) literature (Drnevich and McIntyre, 2010, Bergeron et al., 2004).

While having a digital business strategy is essential for organisations, ensuring alignment between the enterprise systems (i.e. human resources, finance and others) and the digital business strategy is necessary to increase the business value of these enterprise systems. Organisations can derive strategic benefits within their business environment using IT (Mathrani et al., 2013).

Setia et al. (2013) discuss the digital business strategy from the customer perspective. According to Setia et al. (2013), organisations recognise the role of the customer in the creation of their services and the delivery process. Therefore, digital business strategies must focus on the needs of the customer more than on production-related competencies, thus leveraging technologies that relate to the customer. To support customers with what they want, how they want it and when they want it, organisations are adopting technologies to support customer-side operations. Leveraging technologies that relate to customer-side operations enhances customer service and, in the end, enhances overall organisational performance. In short, IT and IT strategies provide low-cost differentiation to business strategies, thus improving overall organisational performance (Martinez-Simarro et al., 2015).

The ideas above, nonetheless, have some opposition. Opponents argue that IT has little effect on the competitive advantage of organisations. Carr (2003) argues that executives speak about

IT as though it were an essential and strategic resource that provides their organisations with a competitive edge. However, the ubiquity of IT transforms it from a strategic resource to a commodity that, while essential for business, fails to provide any competitive advantages over competitors who are increasingly likely to have similar IT resources. From a strategic point of view, IT no longer matters to the extent it once did as it has become ubiquitous. Only customised, privately owned technologies offer an organisation a strategic advantage over their rivals.

2.5.3 Automation of Processes

IT plays greater role in organisations; for instance, MISs are applications that automate the processes responsible for consolidating the organisation's information to provide managers with an overview of their organisation's information to support the decision-making process, such as resources planning, project management, performance management and supply chain management (Dimitrios et al., 2013). Information systems are essential for organisations to realise their strategic objectives (Arvidsson et al., 2014)

Several trends exist in IT. The main three trends include: data processing, MIS and strategic information systems. Data processing concerns automating the information-based process in organisations, such as the business processes and support functions processes. The MISs address the information that supports the decision-making processes. The strategic information systems concern monitoring and controlling the performance of strategic tasks (Ardakan et al., 2010). In this research, the researcher focused on the first trend, which is the automation of processes.

Moreover, in this research, the researcher seeks to realise the impact of IT on strategy implementation and demonstrate how IT is an essential ingredient in the strategic management formula. Exploring the strategy implementation practice within public organisations in Saudi Arabia and the usage of IT in this matter can support this idea and reveal different aspects of the impact of IT on public organisations' strategies implementation. Even though IT is ubiquitous and available for rich countries and their public organisations, it is still vital in achieving the strategic objectives, improving strategy implementation activities and enhancing public sector organisations' performance.

2.6 Strategy Implementation in Saudi Arabia and Other Countries

2.6.1 Rentierism

Rentier states are countries that depend on renting their natural resources, such as oil and gas, as the primary source of income and wealth. Many countries can be considered examples of rentier states, such as Saudi Arabia, Bahrain and Oman. This phenomenon has several effects on social and political life in those countries. Several scholars have addressed this phenomenon by studying it from different aspects that span from positive to negative impacts on society. From a social perspective, having massive wealth from the renting of natural resources increases prosperity and life security in society. However, this also has a reverse impact because having less taxation means a decrease in democratic life when the ruling regime is the primary source of income.

The rentier state phenomenon is not only at the national level but is also at regional levels within countries. In Russia and Argentina, some regions enjoy wealth like Middle Eastern countries. Subnational rentier units also suffer from negative political impacts and a lack of democratic tendencies compared to their national counterparts. The essence of a rentier state stems from the fact that renting natural resources as the primary input for the country's income will create authoritative national or regional governments. Powerful regimes within the central governments control processes within those countries that increase the complexities of the ruling regime (Diaz-Rioseco, 2016).

However, changes occur across the world, such as the drop in oil and gas prices and other new global regulations and policies that affect rentier states around the globe. To further explain the dynamics behind this, the Gulf Cooperation Council (GCC) countries, as significant producers of oil and gas, are considered major contributors to world climate pollution and global warming. Therefore, pressure is coming from other countries around the world and the United Nations (UN) for the GCC to support renewable energy plans and to change their policies to save the climate and to reduce carbon dioxide emissions. In addition to the recent drop in prices due to geopolitical tensions, this affects the GCC countries' income from oil and gas. To respond to these changes, the GCC countries have begun looking for other sources for their economy, addressing environmental issues, establishing new policies and motivating renewable energy projects, such as Masdar City in the United Arab Emirates (UAE), which is fully dependant on renewable energies, and the new green building code in Dubai, UAE. However, these are not easy changes for the GCC. People of the GCC under their rentier states enjoy the benefits of having an energy-intensive economy, with low-cost energy, low taxes and

free public services like medical care. As a result, introducing regulations and policies, such as taxation and trade tariffs, will reduce the GCC government's authoritarian power, which may lead to more public scrutiny and the demand for more political representation and more democracy (Reiche, 2010).

The researcher conducted this study in the Middle Eastern region country of Saudi Arabia. This country is also one of the Arabian Gulf region countries, which has a mixture of different cultures, history, dynamics, demographics and economies. The oil and gas supplies provided to the entire world mainly come from this region, resulting in it having prosperous and wealthy countries with resilient economies. Such an environment encourages spending on businesses, particularly in the public sector, that have a large number of funds and promising strategies that must be implemented successfully to enhance the way and quality of life in these countries' societies.

Saudi Arabia is considered a rentier state because it depends on renting its natural resources to other countries as its primary source for its income and wealth. This affects the social and political life within the country because this system has greater participation in spending by the government than by the people through paying taxes. It is notable that the public sector in Saudi Arabia is the largest sector receiving government spending. Moreover, and due to these dynamics, no strict controls exist on the spending and execution of projects. However, this view has begun to change recently due to oil price pressures. Rentierism plays a significant role in understanding and interpreting the research findings and the dynamics and tensions behind them.

Today, the Saudi Arabian government is focused on enhancing the performance of public sector organisations and paying more attention to the implementation strategies of public spending projects due to the changes and attenuation in oil prices. Consequently, strategy implementation is one of the essential aspects that leaders are addressing with increased attention (Fattouh and Sen, 2016).

2.6.2 Strategy Implementation in Saudi Arabia

Strategy planning was introduced in the public sector in the early 1980s of the last century and has become a core and critical part of public management orthodox. However, strategy planning is useless if not linked to strategy implementation. Moreover, planning activities should be linked to resource allocation and performance measures (Poister, 2005). Improving performance has become a need in public organisations, which resulted from external

stakeholders' need for more accountability from public managers and commitment from them to manage their organisations more efficiently (Poister et al., 2013). As the aim of this study is to explore the impact of IT on strategy implementation in Saudi Arabia, in this section, the researcher addresses studies that tackle strategy implementation in public organisations in Saudi Arabia.

Moreover, public organisation environments have been affected by different factors in the last decade as oil prices have changed and due to centralisation and decentralisations concepts, privatisation and others (Bryson, 1988). Strategic management theory and practice exist in the public sector. Research in this area has increased, and frequent discussion is even taking place in public sector-related journals. However, very little research exists about this in public organisations in Middle Eastern countries (Elbanna, 2013).

Al-Ghamdi et al. (2007) discuss how employees learn about their organisation's strategy. They surveyed a Saudi manufacturing company and found that employees were eager to discover information about the corporate strategy and direction. Employees preferred channels such as one-to-one communication and group meetings. This study highlights the importance of different communication channels in disseminating strategic information to enhance the implementation of the strategy. As technology has become the essential driver and medium of communication, technology is regarded as increasingly crucial for strategy implementation. Communication is an essential element for successful strategy implementation. Technology has a massive impact on communication, such as through teleconferencing and emails.

Al-Gamdi (2006) explores obstacles to successful strategy implementation and strategic decision making in the petrochemical industry in Saudi Arabia through a survey of 53 petrochemical companies. The investigator concluded that it was necessary to have an effective management support system, top management involvement, strategy and structure alignment and an adequate compensation system to support and facilitate strategy implementation in organisations in Saudi Arabia. Al-Gamdi (2006) reports that more than 30 per cent of respondents identified seven obstacles to successful strategic decision making. These obstacles included: inadequate training for low-level employees, lack of rewards for implementing plans, organisations taking more time than initially allocated, no clear definition of changes in employees' responsibilities, competition interfering with the implementation activities, deviations from the original strategy and a lack of understanding concerning the role of the organisation's structure in strategy implementation.

2.6.3 Strategy Implementation in Other Countries

Elbanna (2013) explains that UAE public organisations are significantly using strategic management processes, and government leadership is adopting it.

Al Katheeri (2016) discusses strategic management practices and the relationship between strategic planning, implementation, evaluation and organisational performance in UAE–Abu Dhabi semi-government organisations. He found that organisations that are doing well in strategy implementation would have greater organisational performance as it is considered a key driver for improving performance. Moreover, the current research on strategic management elements in Abu Dhabi public sector organisations is still not clear as much of the previous research has been conducted on private sector organisations. Al Katheeri (2016) found that there is a positive relationship between strategic implementation and organisational performance.

Elbanna (2010) discusses the strategic planning practice in private and public organisations in the UAE. The researcher found that there is a positive attitude from those organisations towards strategic planning as an essential management tool. He found that little management consultation is recruited for strategic planning activities. However, the research recommends introducing the management consultants in such activities to establish a structured strategic planning practice within these organisations in the UAE.

AlQubaisi and Khalfan (2017) also discuss the strategic implementation in public sector organisations in the UAE. They found that strategic implementation success affects organisational performance in UAE public organisations. Moreover, they studied the factors that impact strategic implementation, which included human resources commitment, support from senior management, having a formulated strategy and decentralisation of the strategic planning activities.

Aldehayyat and Anchor (2010) discuss the strategic plan implementation in Jordanian private-listed organisations. The researchers found that a clear relationship exists between organisational performance and problems in strategic implementation. They indicated that strategic planning helps improve coordination within the organisation, better controlling through measuring the performance against the objectives and several other benefits. Moreover, they mentioned that Jordanian companies have placed more attention on strategy formulation and planning over strategic implementation activities. The study showed that managers practised the strategic planning activities and formulated strategy in their

organisation; however, there is little knowledge on strategic implementation in Jordanian organisations.

Elbanna et al. (2015) discuss one strategic management framework that is built on measuring performance: the balanced scorecard (BSC). The researchers examined the BSC in the hospitality sector in the UAE and Qatar, in which they developed scale items and assessed them regarding reliability and validity. The research will help other researchers to do more research on the BSC in the hospitality industry and other industries. Moreover, Elbanna and Elsharnouby (2018) also examined the strategic planning in the hospitality sector in the UAE and Qatar, in which they found it is essential for the examined hotels and the effectiveness of planning. Additionally, organisational capabilities and the decision-making styles are essential and positively impact the planning effectiveness of these hotels.

Afonina and Chalupský (2012) review the utilisation and awareness of strategic management tools and techniques among organisations in the Czech Republic, conducting a comparative analysis with other countries, including Saudi Arabia and the UK. The research instrument employed in this study was a survey questionnaire. The study addressed 31 strategic management tools and techniques and found that the strengths, weaknesses, opportunities and threats (SWOT) analysis was the most popular tool in Czech, Finland, the UK and Australia. However, benchmarking was the most popular tool used in Saudi Arabia.

Sorooshian et al. (2010) address the impact of strategy implementation on organisational performance in small and medium manufacturing enterprises (SMEs) in Iran. The study found that the main drivers for strategy implementation were organisational structure, leadership style and organisational resources. These constructs were found to influence organisational performance positively. The investigators also measured organisational performance from a financial perspective. The study sampled pistachio organisations in the south of Iran with fewer than 250 employees. The research findings confirm that strategy implementation is the primary driver that positively affects the financial performance of SMEs.

Jalali (2012) investigated the role of strategy implementation on export performance by sampling 137 food exporters in Iran. The researcher found that organisational strategy implementation affects export performance. Due to increased globalisation and open markets, export performance is an essential area of competition for many organisations. Strategy implementation impacts the export performance of exporting organisations. Therefore, export

performance is an essential measure for many countries, especially the developing countries of the Middle East.

2.7 Literature Review Synopsis

By reviewing the literature, the researcher explored problems about strategy implementation and the link with IT. This review began with a discussion outlining the different strategy implementation frameworks and models available to and used by organisations. These models help organisations arrange and coordinate their activities appropriately to facilitate the process of strategy implementation.

Different models examine the organisation and strategy implementation using various lenses. Kaplan and Norton (2005) use performance measurement as the basis for their balanced scorecard model. Higgins (2005) addresses different dimensions of the organisation in his Eight S's system, including structure, staff, resources and others. Kim and Mauborgne (2015), with the blue ocean theory, make a radical suggestion regarding the execution of strategies, recommending that organisations create demand for their services, rather than competing in already saturated current markets. Hrebiniak (2013) proposes a model with different components and interactions between these components. He claims that by harnessing this interaction, a firm can make the strategy work in its favour.

After discussing various models of strategy implementation, the researcher reviewed the literature concerning the gap between strategic planning and implementation. Organisations often perform strategic planning activities without linking them to implementation activities. Several authors have investigated this gap and confirmed its existence, including Noble (1999), Hrebiniak (2008), Lindøe Pedersen (2009) and Srivastava et al. (2015).

Implementing a strategy mandates a change in the organisation. This change occurs in different organisational areas, such as the organisation's structure and its way of doing work. Strategic change is vital for the success of strategy implementation activities and the success of the organisation (Montgomery, 2008, Krishnakumar, 2015). Additionally, several scholars consider the importance of change in their strategy implementation models, such as Kaplan and Norton (2006) and Hrebiniak (2006).

From there, the discussion moved on to strategy implementation problems and obstacles. Different scholars report various types of obstacles, such as improper leadership and organisational structure (Čater and Pučko, 2010). Other concepts were discussed in subsequent sections that impact strategy implementation (e.g. governance, innovation, agility and

openness). Additionally, the researcher argued for the impact of strategy implementation on organisational performance. Strategy implementation activities impact all aspects of an organisation, including its structure and resources—this impacting the performance of the organisation (Andrews et al., 2011, Ho et al., 2014).

The discussion then turned to the role of IT. The importance of IT was determined by measuring its impact on organisational performance and the necessity of alignment between IT and strategy implementation. The discussions led to the development of this study's main building blocks.

This review explored some examples of empirical studies conducted in the Middle East and Saudi Arabia regarding the research problem (vis. the implementation literature).

In summation, the literature addresses the research problem from various perspectives. This review has similarly enriched the researcher's understanding of the scope of the strategy implementation problem and the dynamics that surround the role of IT in helping organisations mitigate the consequences of this problem. Additionally, the literature review has informed the development of the research's survey, providing insights on building the research questionnaire. The research questionnaire has been constructed around three pillars that stem from the outcomes of this literature review: measuring the importance of strategy implementation, identifying the drivers of strategy implementation and ranking the technological factors that affect strategy implementation. Several scholars address the importance of IT and its crucial role in implementing an organisation's strategy. They insist that IT is necessary for an organisation to realise its strategic objectives (Arvidsson et al., 2014) Moreover, several scholars argue that it is mandated to have IT aligned with the strategy to produce the best results and enhance organisational performance (Asato et al., 2011, Zubovic et al., 2014, Yeh et al., 2012, McLaren et al., 2011).

The framework is shown in Figure 2-2, which details the building blocks above (Figure 2-1) while zooming in on the strategy implementation aspect. This framework establishes the basis for the research and defines its boundaries. Moreover, it explores the impact of strategy implementation drivers and IT factors on organisational strategy implementation effectiveness.

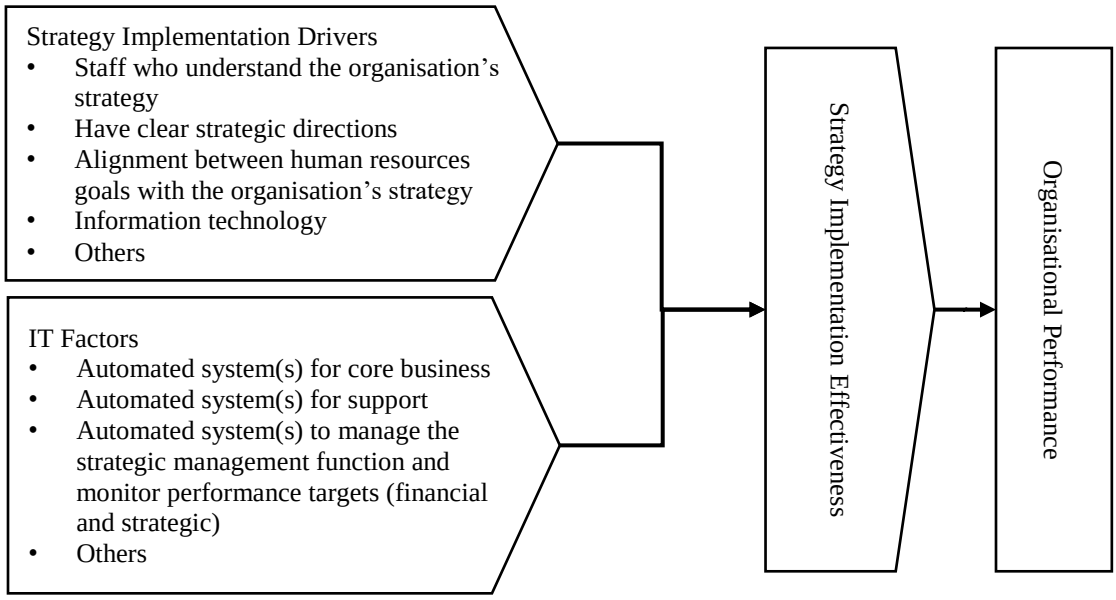

Figure 2-2 The Research Framework

3 Research Methodology

This chapter describes the methods that the researcher has employed in this research and how he conducted this study; whereas, the subsequent chapters describe the results after applying these methods. As discussed in previous chapters, the research intends to establish a better understanding of the different dynamics of strategy implementation: models, importance, obstacles, challenges and others. Moreover, the research aims to fill a significant gap in the literature by reporting the findings of a study on strategy implementation importance and drivers in Saudi public sector organisations and on how to utilise different IT aspects to improve the strategy implementation by recommending a set of practices and actions to improve strategy implementation. The researcher employed quantitative tools to explore the different research building blocks, strategy implementation drivers and IT factors presented in the previous chapter using descriptive statistical methods. Moreover, the researcher employed qualitative tools to explore and understand the IT automation factors that have a greater impact on strategy implementation and report the recommended actions by practitioners to enlarge their impact. Moreover, a set of recommendations is defined to manage the change that is expected to be a result after applying the action plan. Therefore, mixed methods research was appropriate for this study.

The chapter consists of the following main sections. The 'Research Philosophical Position' section addresses various philosophical positions that the researcher has adopted in this research and the tensions between them. The 'Methodological Approach' section describes the approach that the research follows for the intended intervention of this research and the action in practice. The approach is based on action research with mixed methods, both quantitative and qualitative. Moreover, this section describes the research design and how the research fills the gap between theory and practice.

The 'Quantitative Methods' section explains in detail the survey that was conducted and the process used to obtain the quantitative data. The findings of the quantitative stage are considered input for the qualitative stage using the IT automation factors as the base for the discussion in the interview. The last section, 'Qualitative Methods', provides the details of the methods and the processes used in conducting the interviews, interpretations and analysis of the data and the formulation of the recommendations and actions of the research.

3.1 Philosophical Position

Researchers in the field of management adopt diverse philosophical positions that shape their research's language and draw the roadmap they will follow to achieve their objectives in conducting the research. There are different philosophical approaches proposed by academics and management authors, such as positivism, post-positivism, interpretive and critical theory. The researcher's ontological position in this study is rooted in two paradigms, namely positivist and interpretive, as he is adopting the critical realist perspective, which directed his research to follow the mixed methods approach (Guba and Lincoln, 1994, Scotland, 2012, Easterby-Smith et al., 2012). In the following paragraphs, the researcher describes how he overcame the inherent tensions between these philosophical positions.

As mentioned, in this study, the researcher adopts the critical realist perspective because he believes the reality examined in this research exists by itself and can be recognised by our senses. In this way, the researcher agrees with the positivists' view of the world. However, the researcher is an insider to the research as an action researcher who is engaged in research dynamics and affected by its results. This is related to his work in the field of strategic management and the public sector in Saudi Arabia. Therefore, the researcher is a subjectivist from the epistemological perspective because he is connected to the subject of the research. Hence, the researcher agreed and aligned with the hermeneutics or interpretive paradigm (Brannick and Coghlan, 2007).

In the positivist perspective, reality exists externally to the researcher. This perspective supports the researcher's thinking in defining the relationships between the different variables in the research and performing the statistical analysis in the first part of the research. Namely, to understand the research phenomena, one must understand the separate variables to understand their relationships (Venkatesh et al., 2013). The variables in this research, such as strategy implementation effectiveness and IT factors variables, exist separate from the researcher. Moreover, there are relationships between these variables that are proved using statistical tools. Doing this helps in understanding the research phenomena: the obstacles to strategy implementation in public sector organisations in Saudi Arabia and how IT can impact this.

In the second stage of the research, the researcher interprets the social reality of the strategy implementation and the impact of IT in improving its activities. By adopting a qualitative approach and using interviews, the researcher depends on the interpretations of the participants

regarding their social reality and the researcher's interpretation of the qualitative data produced. In this research, the researcher is not seeking to determine the causes of failure in the implementation strategy or to develop a generalisable theory. The intention is to improve the practice of strategy implementation within public organisations in Saudi Arabia by taking actions and capitalising on the IT factors with greater impacts on strategy implementation activities (Bell, 2014). Consequently, the research was conducted in a unique context. The findings may be generalised in the future to other similar contexts, such as other public sector organisations in the GCC countries, other rentier states or other Middle Eastern countries.

From an ontological perspective, the researcher sees himself as part of the 'other' in this research because his research subjects and his work are in the same field. However, the researcher is not entirely an outsider or insider to the research but something in between. The researcher has collected the research data (quantitative and qualitative) as an outsider, but his analysis is affected by his experience as an insider as he is part of the strategic management practice in the public sector in Saudi Arabia (McNiff, 2014). The researcher has an insider's view because he has different levels of connection with most of the organisations that participated in the research. The researcher is an outsider in that he is not currently working with those organisations. So the researcher is not entirely a native insider to the research and is not entirely an outsider. The researcher thinks such a recipe for an insider researcher is likely to make the research conform better to the rigorous requirements for doing research.

This study is social research, in which the interaction between human beings is complex and cannot be dealt with like a simple phenomenon. Therefore, the interpretative paradigm arises. The world is socially constructed and can be changed by human actions. This perspective is significantly linked to action research, which looks to improve the practice of doing work. The complexity of social phenomena mandates that the whole be more than and different from its components (Easterby-Smith et al., 2012).

As a result, by adopting these paradigms and using the research tools and the interpretation of the social reality, we can have tools that help in interpreting and understanding the building blocks of this research that indicate that IT can improve the implementation of a strategy. The research provides actionable knowledge that can be adopted by organisations to enhance their strategy implementation practice, which could lead to enhancements in overall organisational performance. The actions produced will be in a set of recommendations for managers to leverage the IT automation factors that have a greater impact on the strategy implementation activities.

3.1.1 Ethical Issues

The researcher considered several ethical issues during the research. One ethical aspect is to ensure one is collecting factual data that address the research problem. To overcome this matter, the researcher included a consent form and an information sheet as mandatory for proceeding with answering the questionnaire. Additionally, most of the communication with the participants was through their official email addresses. In the interview, this was not an issue as there was direct interaction with the interviewees.

Another ethical aspect is reducing personal biases that may affect the research results, mainly because the researcher has been engaged in the strategic management practice and IT industry. To mitigate the effects of this bias, the researcher gave the participants the freedom to speak and did not affect their answers. However, there was interaction in the interview to draw out more information and knowledge.

The participants in both stages of the research are middle-management employees (department managers, project managers, directors, senior managers and others) within public-sector organisations in Saudi Arabia. The researcher approached the managers directly by sending the questionnaires to their official email addresses and by conducting interviews with a group of them. So as far as obtaining information from public sector practitioners, this raised concerns from some participants regarding providing information and the actual need for collecting data. Therefore, the researcher clearly explained the objectives of the research and ensured that the participants' identities would remain anonymous.

3.2 Methodological Approach

In this section, the researcher discusses the research approach in conducting this study and the overall design of the research. In the previous section, the idea of the research was discussed, and in this section, the researcher will discuss how this was implemented and the tools used for this.

3.2.1 Action Research

Action research is an approach that utilises theory for the benefit of practice and utilises practice for the benefit of theory. The study was conducted using the action research approach and its principles. The first part of action research is the action, in which the research aims to produce actionable knowledge that can be used by managers to initiate a change within their organisations, leading to an improvement in their strategy implementation activities. In doing

this, the overall organisational performance will improve, and the organisation will have better results in their endeavours.

Moreover, the researcher aims to merge the findings of this research and the tacit knowledge rooted in middle management strategic management practice and experience. The researcher seeks to convert this tacit knowledge to explicit knowledge by reporting the views and recommended actions by the managers to improve the strategy implementation. Therefore, the researcher conducted a set of interviews to solicit managers' insights on the IT automation factors that influence strategic implementation activities in Saudi public organisations. Doing this will help in reporting the good practices followed by managers in light of theory.

Action in this research can be viewed from different angles; the first angle is related to the actions that have been practised by managers in the public sector in Saudi Arabia by adopting IT automation to improve strategy implementation activities within their organisations. The researcher reported these actions in the outcome of this research as the action plan. The second angle relates to the study process of those actions, linking them to theory. The researcher takes an action by conducting this study to report the practices in light of theory and to establish an action plan that can be followed by the managers in the strategy implementation field. The last angle relates to taking action in the researcher's organisation by utilising the resulting knowledge to reshape his consulting products and services.

One may adopt action research in several aspects of life and use the principles to perform daily work and activities. The act of writing in this study is action research in itself. It is a learning process that goes beyond typical means of learning by injecting learning in all life's facets. By implementing the actions resulting from this study, managers are likely to learn and improve their practice and their organisational performance. It is expected the improvements may be more apparent in the long term, when they assess the overall performance of their organisations. Therefore, another study must be conducted to measure the results of applying the actions and the practices used to manage the generated change in the organisations. Managers aim to enhance the strategy implementation practice within organisations through using and adopting the IT factor recommended actions.

The research part of this action research study uses the mixed methods approach, in which the research begins by using the quantitative methods to gather and analyse data that direct the research to its second stage, namely using qualitative methods. Moreover, reviewing the available literature and exploring different scholars' views in the world and in the region is part

of the research as well. Additionally, the action part of the research has been represented by the practice itself and how action can be taken to improve it. The action research is a learning process that bridges the gap between theory and practice. The action portion of this study represents our empirical work and the actions taken, while the research portion explains why those actions were taken and how this affects learning (McNiff, 2014).

3.2.2 The Gap Between Theory and Practice

This research generates knowledge from the practical experience of managers and insights from their strategy implementation practices. However, this knowledge is rooted in theory, as demonstrated in the literature review and the views of various researchers. Therefore, the researcher reflects and connects the practice with its theoretical dimensions. Thus, this research participates in the efforts by practitioners in the field to bridge the gap between theory and practice. This study is established on rigorous knowledge gained from the available theoretical literature and practical knowledge gained from the experiences of practitioners. Therefore, if we consider theoretical knowledge as mode 1 and practical knowledge as mode 2, then this research represents mode 1.5. This mode is responsible for creating rigorous practical knowledge (Gibbons et al., 1994). Participants who work as managers in their organisations reflect on their experience to offer practical, actionable knowledge that can be utilised by others to improve their strategy implementation practices. This actionable knowledge is extracted using a scientific tool and analysed under the lens of theory gained from the literature review and the views of the different researchers in the field.

Figure 3-1 connects the ideas presented in this section and shows a view of the study from an action research perspective.

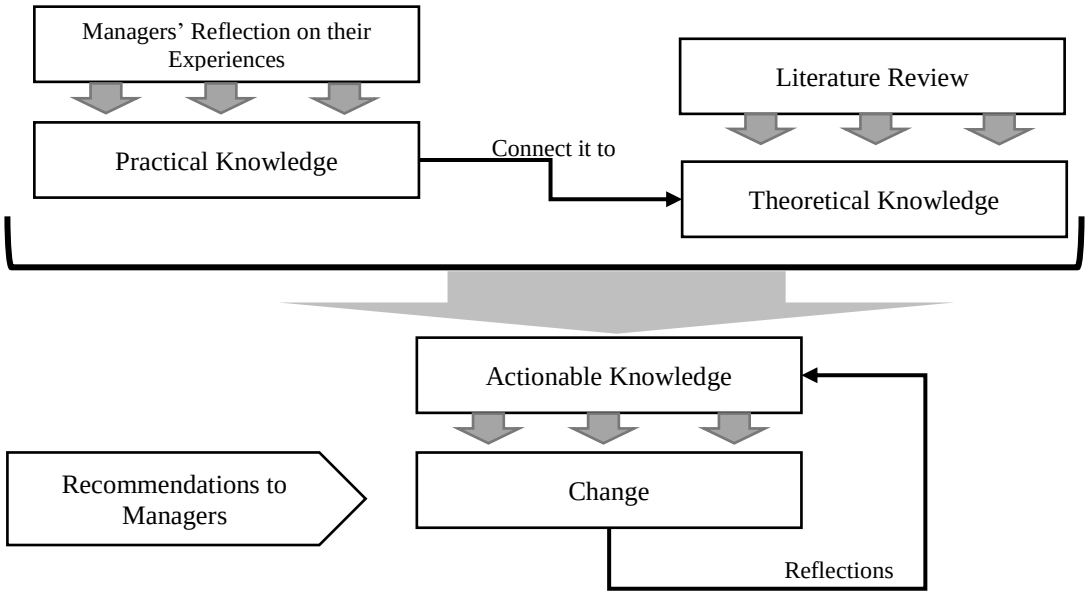

Figure 3-1 The Study's Action Research Perspective

As a Doctorate of Business Administration (DBA) candidate, the researcher's motive and passion are to link the world of practice with the world of theory, which is clarified in Figure 3-1 by the connection of the knowledge extracted from managers (practical knowledge) to the available frameworks and models (theoretical knowledge) to implement organisations' strategies with actionable knowledge. This actionable knowledge may be used by managers to generate changes within their organisations. The scope of this research covers most of the components of Figure 3-1, except for the step reflecting on changes after applying the actions due to time limitations. However, the study will provide practitioners with recommendations on the process to manage change and reflect on the actions taken.

3.2.3 Research Design

The research design represents the skeleton of the research and outlines the roadmap to achieve the intended objectives. The researcher designed the research to be conducted in two main stages. Figure 3-2 provides a full picture of the research design and its main stages and components. As depicted in Figure 3-2, the research integrates the quantitative and qualitative approaches (mixed approach). The main integration point appears in using the quantitative data as an input for the qualitative research, which defines how the interviews will be conducted (Creswell and Plano Clark, 2011).

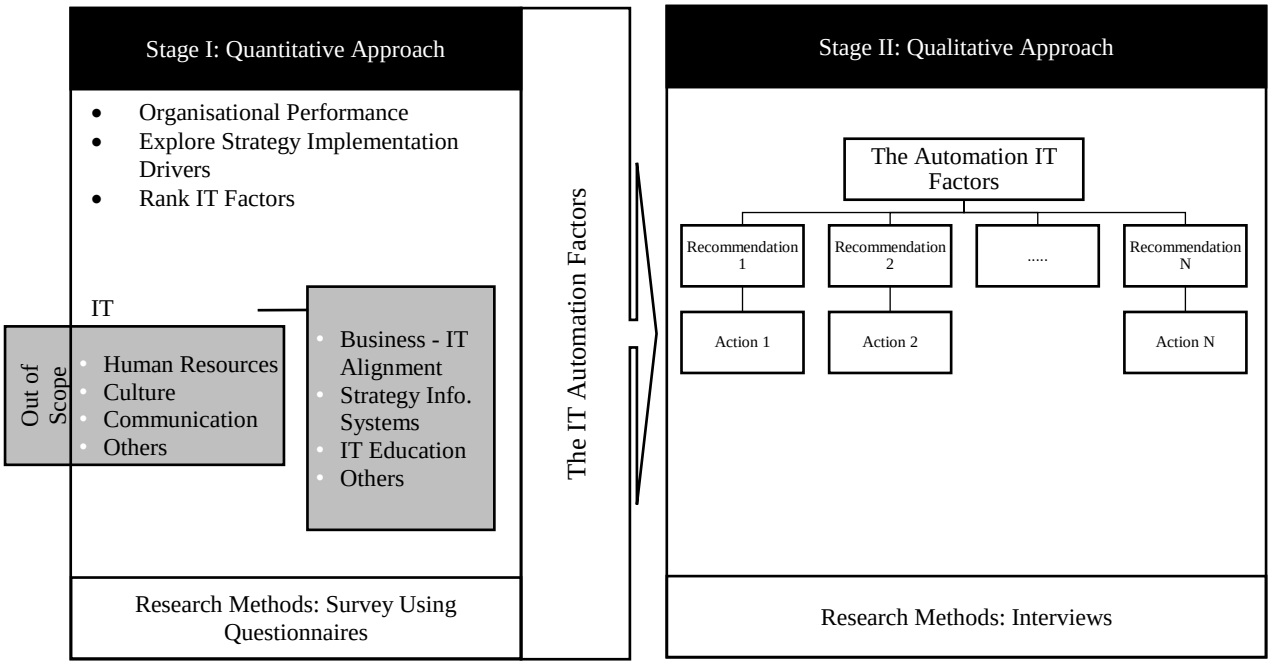

Figure 3-2 Quantitative and Qualitative Approaches to the Research Design

The first stage is deductive, using a survey as the quantitative method to explore the different strategy implementation drivers and focus in on the IT to identify different IT factors resulting from the literature review. Participants responded to an electronic questionnaire created by *SurveyMonkey* [www.surveymonkey.com]. *SurveyMonkey* is a paid service that provides the capability to build an online survey, quickly collect data and complete the needed analysis using email and electronic responses. The objective of this stage is to collect quantitative data that helps to rank the IT factors based on the participants' responses.

To perform an analysis of the collected data, the researcher used the automated statistics tool, Statistical Package for the Social Sciences (SPSS). The researcher fed the SPSS with the collected data and then executed a set of statistical tools on these data. In this stage, the researcher collected responses from the defined sample. To obtain reliable results, the researcher surveyed a reasonable number of practitioners who represent the practice and its community. The questions were well structured to explore the technological factors that have greater impact on strategy implementation. Moreover, the questions were clear, concise and straightforward.

In the second stage of the research, qualitative methods were used to perform a detailed investigation on the IT automation factors that were proved in the first stage. In this stage, the interview (the data collection instrument) was used as the main qualitative method. A question

included in the questionnaire determined the participants' willingness to be interviewed. Therefore, the interviews were conducted with a group of participants from the first stage. Next, the second wave of analysis on the interview findings was performed. In this stage, the interviews allowed the researcher to dig deeper into the details of the IT factors with greater impacts, which allowed for identification and synthesis of the actionable knowledge. This production of actionable knowledge was a coproduction between the researcher and the participants, and it was rooted in tacit knowledge and experiences.

3.2.4 Unit of Analysis

In this research, the unit of analysis is at the organisational level and not at the business unit, organisational unit or project level. As the researcher is seeking to discover the impact of the strategy implementation effectiveness on organisation performance, the organisational level is more appropriate for the unit of analysis to ensure the consistency between the unit of analysis and the measures. Therefore, the research, and when addressing the different outcomes resulting from this research, is applicable at the organisational level (Elbanna, 2006, Nutt, 2011).

3.2.5 Research Population and Sample

As mentioned before, Saudi Arabia is leading the oil production industry in the world, which grants it a prominent position in world trading. Utilising this, Saudi capitalises on socioeconomic investment to provide high-quality public services to its people (Kattuah, 2013). Saudi population had a total labour force of 10.7 million in 2016, of which 1.2 million were in the public sector, including Saudis and non-Saudis (General_Authority_of_Statistics, 2017). However, regular employees comprise 0.4 million, and the remainder are teachers, doctors and other employees with specific professions. So the population of this study is the middle management staff of those employees. Middle management addresses the tactical level; it refers to the managers who sit on the second level, below top management, or the CxO level (CEO, CFO, CTO and others), but above the level of typical employees. This study includes department managers, project and programs managers, directorate level managers and others with similar tenures. Since this research targets the public sector in Saudi Arabia, the primary organisational structure is a functional one, which is the most stable and traditional. However, there are other structures, such as project-based structures or mixed structures, which are organised around projects and functions (Guide, 2004). Therefore, project managers are included in the study to cover the mixed structure that exists in some Saudi organisations.

Higher levels of management, team leaders and typical employees, such as team members, operators, clerks and secretaries, are excluded from this study.

The researcher drew the sample from this population as he conducted the research with participants from the middle level of management in public sector organisations in Saudi Arabia. The researcher's background and experience in the KSA allowed for insights into what is occurring in the field from a Middle Eastern perspective. Such experience helped the researcher understand the public sector in the KSA and gain several insights about the obstacles that face strategic implementation practice in this country. Moreover, this also helped the researcher build a vast network with the management layer in the public organisations, which allowed him to conduct this research and to obtain the information about the strategic implementation progress within these organisations. Additionally, the interaction between the researcher and the managers in these organisations provided the researcher with a base of thought about the research problem and how managers can mitigate it through the adoption of IT.

The researcher has a database with contact details of many people working in the public sector in Saudi Arabia from which he drew his sample. This database facilitated the data collection for this research and helped target the correct sample. By asking members of this contact list to participate in the study, the researcher assembled a representative sample of the population that covers a broad spectrum of organisations from the public sector in Saudi Arabia. The researcher's relationship with the prospective participants encouraged them to provide more insights into their work and gave them more confidence in the value of the research. In brief, the targeted sample of this research consisted of 203 mid-level managers in 61 public sector organisations in Saudi Arabia.

The sampled organisations have a formal strategic plan. The research ensured that this criterion was satisfied by completing a desk search on the Internet and visiting those organisation portals (formal organisation websites) to find those organisations' published formal strategic plans. Alternatively, the organisations have mentioned in their published news that they have a strategic plan.

The research sample was selected from the public sector population and included different industries within the sector. The questionnaire was sent to 203 mid-level managers (such as department managers and section managers, who are responsible for strategy implementation activities) at 61 public sector organisations among different industries in Saudi Arabia through

electronic mail. Using the website, participants could complete the questionnaire.

The average number of managers across all organisations was 3.33 per organisation. In the sample, 41 organisations (67 per cent) had less than the average participation, and 20 (32 per cent) had above the average. The distribution of the managers among the different organisations is depicted in Figure 3-3.

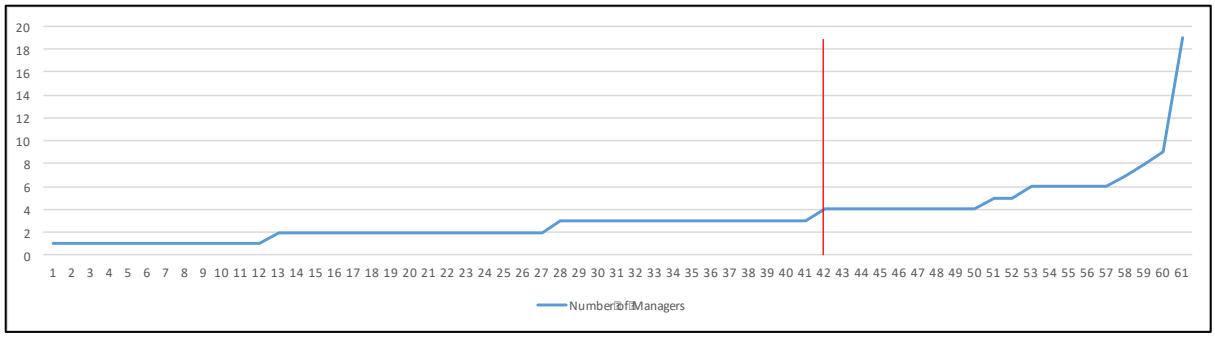

Figure 3-3 The distribution of the Managers Among the Different Organisations

The x-axis represents the organisation number, and the y-axis represents the number of managers in each organisation. The distribution of managers across all organisations is summarised in Table 3-1.

Number of managers (A)	Number of organisations that have the same number of managers (B)	Total number of targeted managers (A*B)
1	12	12
2	15	30
3	14	42
4	9	36
5	2	10
6	5	30
7	1	7
8	1	8
9	1	9
19	1	19
Total		203

Table 3-1 The Distribution of Targeted Participants in Organisations

3.2.6 Reliability and Validity

One strength of this research is that it depends on obtaining information about the research constructs from more than one participant in each organisation (i.e. the average of participants in the same is 3.33 per organisation). Reliability analysis showed substantial agreement with all statements above the mean (Field, 2013). The English version of the questionnaire was pre-tested by four participants in the pilot stage. Even though Arabic is the primary language in the public sector, the questionnaire was constructed in English and Arabic to obtain more responses. The primary language for the participants in this study is the Arabic language.

Nevertheless, the English language is the second language used in the region and in Saudi Arabia specifically. Koufopoulos and Moorgan (1994) used this method of having two languages in their case study of Greek. Moreover, to ensure the translation of both versions was the same, a parallel-translation method was used by translating to Arabic and then translating the same item back to English by the participants in the pilot, along with the researcher. A final quality review was conducted by the participants in the pilot (who speak both languages) (Douglas and Craig, 2007).

To ensure the validity of the research, the questionnaire was sent to the managers who were part of the strategy implementation activities within Saudi public sector organisations, and they were exposed to the performance of the entire organisation. Moreover, the participants in the interview were part of those managers.

3.2.7 The Generated Change

As mentioned, this research aims to provide managers with recommended actions to help them improve their strategy implementation practice. Implementing these actions may generate a change in an organisations' internal and external processes in performing strategy implementation activities and work processes. Thus, to respond to these recommendations, organisations may change their way of doing business and their internal operations. Managing change properly is one of the managers' mandates to ensure the intended results of implemented changes (Greenwood and Levin, 2006). To accomplish this, managers should have a separate parallel track to manage change and a set of actions to ease the implementation and mitigate the obstacles they may face. As an action research project, this study intends to improve organisations' endeavours to implement their strategies successfully. These changes will help firms capitalise on IT automation factors that affect the implementation of their business strategies. For success, managers should reflect on the actions taken and modify their

actions accordingly, then reflect again and so on. As shown in Figure 3-4, the entire activity is an action research process. A person takes action for improvement, then checks the results, adapts the practice and then acts again. It is a cyclical process. This cyclical process, which is the essence of action research, is used in all aspects of human lives.

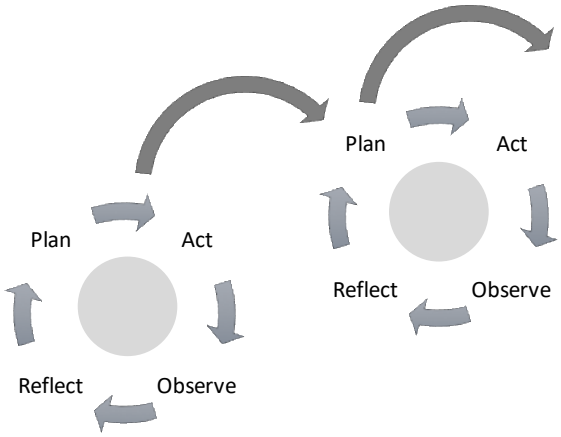

Figure 3-4 Action Research Cycle

The act in the above graph represents the actions taken by managers in Saudi public sector organizations to implement their strategic plans via the utilisation of the business automation. These actions have been observed by the managers who reflected on them and provided their reflections through this research. Based on these reflections, an action plan was established that will be used by managers to implement the actions across their organization and so on. Briefly, the study initiates an action research cycle. It provides recommended actions to managers that result from a reflection on their collective experience. Then, the managers use these actions to initiate change in their organisations, reflect again on the results of those actions and take further steps to adopt the recommendations.

3.3 Quantitative Methods

In this section, the researcher describes how he conducted the quantitative stage of this study. In this stage, the researcher collected quantitative data to explore the different drivers that have an impact on strategy implementation and the IT factors.

The researcher used a survey as the method for data collection by disseminating well-prepared and structured questionnaires to participants. The researcher conducted a pilot test for the survey before the actual start of the data collection process to ensure that the survey achieved its objectives.

3.3.1 Survey Process

Figure 3-5 depicts the flow diagram for the survey process that represents the main steps for the survey and the quantitative stage of the study.

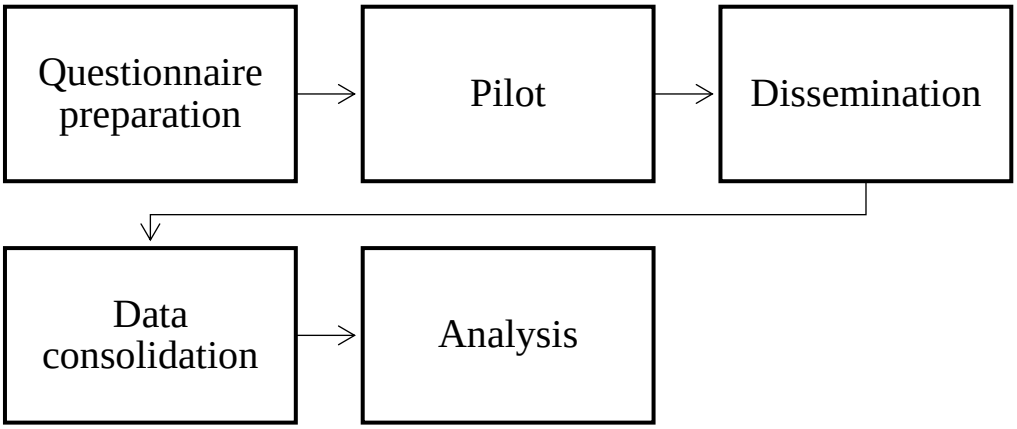

Figure 3-5 Flow Diagram of the Survey Process

3.3.2 Questionnaire Preparation

The questionnaire was well structured and took the participant through it in a logical order, beginning with the strategy implementation drivers and ending with identifying the IT factors with greater impacts on implementation. To clarify the questionnaire to the participant, the researcher divided the questionnaire into different sections. The sequence of questions began by asking about the participant's views on the importance of the strategy implementation (Section 'A' of the questionnaire). In the second section, 'B', the researcher asked about the drivers for successful strategy implementation within organisations. In the third section, 'C', the researcher focused in and asked about IT and the impact of different IT factors on strategy implementation activities. In the remaining section, the researcher collected background information about the participant. Various types of questions are presented in the questionnaire, such as dichotomous questions and Likert scale questions. Moreover, closed questions sought participants' specific answers among given choices, and open questions gave the participants the freedom to answer in their own words (Pallant, 2013).

The research question, literature review, building blocks and research design provide the foundation for the preparation of the survey's questions. In order to support the thinking that was presented in the literature review about the gap between strategic planning and implementation and the obstacles facing strategy implementation, a set of the statement was presented in the questionnaire and solicited an answer from the responder. The respondent gave his or her agreement to the statement in a scale from 'strongly agree' to 'disagree strongly'. An

example on a statement is ‘Strategic planning is more important to my organisation than strategy implementation’.

In order to explore the impact of strategy implementation on organisational performance, the researcher sought respondent agreement on the following statement: ‘Successful implementation of the strategy will enhance my organisation’s performance’. However, the researcher debated this statement as it required more improvement in order to determine the performance measure that it impacted (such as financial measures and processes measure).

The second group of statements addressed the drivers that were extracted from the literature discussion that occurred previously. As an example, Sabourin (2015) mentions ensuring cohesive implementation and addresses how to execute objectives in an integrated manner consistent with the organisation’s values. Using this, the researcher extracted the following statement that represents one of the drivers: ‘Alignment between organisational culture and the strategy’.

The third group of statements aims to discover the IT factor that has a greater impact. The factors were extracted from the literature review, with addressing the automation factors as part of those factors, such as ‘Having an automated system(s) for core business’. Moreover, this group was presented first to ensure its positive impact on the strategy implementation and then were presented to see the impact of its absence on the strategy implementation. In this way, we can be more reliable about the results during the analysis phase.

The literature review and the research building blocks presented in the research framework were the tools used to craft the questions presented in the questionnaire. After the questionnaire was prepared, the next step of the process was to test the usability and validity of the questionnaire.

3.3.3 Questionnaire Pilot

To ensure that the questionnaire would achieve its objective and collect the intended quantitative data, the researcher conducted a pilot questionnaire with a group of his colleagues. The pilot provided an initial test for the validity of the questionnaire and its questions. The researcher’s colleagues provided feedback on the questions from different perspectives regarding clarity, correctness, sequence and several other criteria.

The participants in the pilot have worked or participated in strategy implementation activities during their career life in Saudi Arabia public sector organisations or in other similar organisations in Middle Eastern countries. Moreover, most of the participants worked in the IT

industry or related ones.

The researcher attempted to have a variety in the pilot sample in order to have sufficient feedback on the research questionnaire. The feedback was essential to fine-tune the questions and to avoid issues when sending the questionnaire to the participants. For example, one of the participants provided some input to rephrase one of the questions to make it more readable and to reorder some of the questions. Previously in the questionnaire, the drivers that impact strategy implementation were named factors, and the IT ones were named subfactors. So one of the participants, for example, suggested naming the factors as drivers and the subfactors as factors to have more clarity, which was also supported by the literature review. Although the participants in the pilot included only four people, they provided detailed feedback that improved the questions and the way the questionnaire was structured.

3.3.4 Questionnaire Dissemination

In this step, the researcher disseminated the questionnaire to the defined sample. The researcher utilised a contact list that he constructed during his work experience in Saudi Arabia. The researcher used *SurveyMonkey*'s electronic channels to disseminate the questionnaire and make the process for collecting the data more accessible. *SurveyMonkey* allowed the researcher to manage the entire process of the survey and to maintain the collected data from the participants.

Moreover, it allowed the facility to provide the questionnaire in different languages, such as English and Arabic. The questionnaire was communicated to participants through an electronic channel (i.e. email) with a web-link to the *SurveyMonkey* website that hosted the online questionnaire. The researcher used the *SurveyMonkey* email invitation, asking the targeted sample to participate, and explained the main objectives and value of the research and how this may impact the practice of strategy implementation.

Although Arabic is the primary language in the public sector, the questionnaire was constructed in English and Arabic to obtain more responses.

The responses were translated into English to provide all the results in one language. The survey was conducted in three waves to collect the maximum number of responses. The three waves were as follows:

- The first wave: In this wave, the questionnaire was designed in English using the *SurveyMonkey* tools. The questionnaire consisted of 40 questions divided into four sections and nine pages, which were sent to the sample through an email invitation. The survey was opened 8 Dec 2015, and the last response received was on 8 Jan 2016. Only

16 responses were received out of 203 (targeted sample). So the response rate was 7.88 per cent. Critically, the researcher discussed this issue of having a low response rate with his supervisor and colleagues. We concluded that the primary challenge was the language in answering the questionnaire.

- The second wave: The researcher speaks Arabic and English, and he translated the questionnaire to the Arabic language and designed it using *SurveyMonkey* tools. The new design of the questionnaire consisted of 10 pages that were sent again to the sample through an email invitation (the participants in the pilot reviewed the Arabic version of the questionnaire). The survey was created on 4 Jan 2016, and the last response was received on 17 Feb 2016. Twenty responses were received. So the accumulative response rate was 17.73 per cent, ((16+20)/203) which was still very low. Critically, the researcher decided to provide other channels than the email invitation to provide more flexibility for the respondents.
- The third wave: The participants could respond using a weblink that could be shared via email or social media. Respondents who completed the survey were asked to provide contact information and their position at their company. The researcher used the same method for collecting the data through the same questionnaire. However, the link to the questionnaire can be published through any means, such as social media. The researcher contacted the respondents in order to ensure they were relevant people. The survey was created on 29 Jan 2016, and the last response was received on 12 Mar 2016, with 49 responses. At this stage, the researcher believed that this was the maximum number of responses the researcher could obtain, and the accumulative response rate reached 41.87 per cent ((16+20+49)/203).

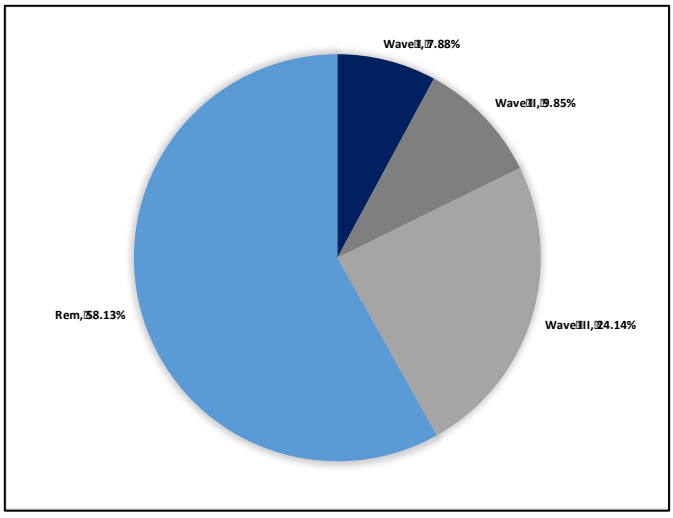

Figure 3-6 Survey Waves Response Rates

In summary, the questionnaire was provided in two different languages and through different electronic channels to obtain the maximum number of responses. Additionally, the researcher sent several reminder emails and notifications to targeted managers to follow up with them. Participation in the survey was voluntary, however, and individuals were responsible for their response. Moreover, respondents' identities and their contact information were kept anonymous and not shared with anyone.

3.3.5 Data Consolidation

By 12 March 2016, the researcher closed the participation in the survey, and he stopped accepting any new responses. Using the *SurveyMonkey* tools, the researcher extracted the responses from all questionnaires and consolidated them into one Excel sheet. The consolidation was a heavy activity as the data were extracted from three different questionnaires that had minor differences in structure due to the language and channel differences. The total number of responses, as mentioned, was 85 out of 203 (targeted sample). The researcher reviewed the responses to ensure they were correct and cleansed the data by doing minor corrections 'if needed', such as ignoring duplicate records by the same respondent and ignoring semi-unfilled questionnaires.

After reviewing the responses, the following main cleansing actions were performed. One respondent submitted four responses; therefore, the one response with the most information was kept, and the others were dropped. Twelve empty responses were dropped. One test response was dropped. The respondents did not answer some of the questions. So the researcher gave those unanswered questions a code of 99. Those missing answers accounted for 116 out of 2,652 total responses, which represented 4.37 per cent of the responses. Based on these activities, 68 clean responses (sample size) moved on to the analysis stage, making the actual response rate 33.49 per cent (68/203).

As a result, the received responses were of good quality, and most respondents were interested in answering most of the questions, indicating that the research subject was of interest for the respondents. Moreover, the response rate was still high enough to craft the findings of the research, and the respondents represented the target sample.

3.3.6 Analysis

To perform an analysis for the collected data from the questionnaires, the researcher used a codebook (refer to the Appendix for a detailed view of the codebook) to codify the questions' answers. Codes are necessary to give numerical values to the answers to perform statistical

analysis using statistical tools. The questions were either closed questions, such as gender, or open questions, such as the current title, and the researcher studied the provided responses to specify the themes and give them codes.

Next, the data were entered into the SPSS tool for statistical analysis. The SPSS is a statistical software tool by IBM that is used to perform statistical analysis of quantitative data. The tool is widely used by researchers and practitioners to research in the social sciences using a quantitative approach.

The following process was used to complete the statistical analysis. The structure of the data was defined based on the codebook, then the data were entered in the tool, the data were screened using the tools provided by SPSS, graphs and descriptive statistics were used to explore the data and finally, the statistical analysis was conducted. What this process provided was the roadmap to using SPSS (Pallant, 2013).

3.4 Qualitative Methods

The second stage of the research was qualitative, in which the researcher explored in more detail the different aspects of the IT factors with greater impact (i.e. automation of processes) by conducting a structured interview with selected participants who agreed to be interviewed. The objective of this stage was merely to gain the views of respondents, analyse IT factors and identify actions that may improve strategy implementation activities. The ultimate goal was to produce an actionable list of activities in a coproduced manner between the researcher and the interviewee. This merging of experiences provided more reflections and insights about the intended products. The process was built based on Kvale and Brinkmann (2009), who described seven steps of interview research. This process begins with setting a theme for the research, followed by designing the study, performing the interview, transcribing it, analysing it, verifying the validity of the interview and finally, reporting the findings. The validity of interviews was not only an inspection of the results of the interview and their relation to the research problem; it must occur during the full lifecycle of the qualitative stage by taking corrective actions if required (Kvale and Brinkmann, 2009).

As an example, the researcher conducted a pilot interview at the beginning to ensure successful interviews with the desired outputs. The interviewee was one of the researcher's colleagues, and the objective was to train the interviewer on different ways of soliciting information from the interviewees, who had various types of personalities and interacted in different ways. Moreover, different channels of communications, such as telephone and Skype, were used in

order to ensure that the later interviews would not face any technical issues due to the communication medium. Additionally, the researcher asked the interviewee for his or her feedback on the interview process, which was helpful in improving the interview process. For example, the interviewee indicated that the researcher should provide the interviewee more space to allow for more input on the questions or even on the thesis topic, regardless of whether it related to the question or not. Lastly, the interviewees had more than 12 years of experience in the public sector in Saudi Arabia, occupied different tenures and participated in implementing assorted strategies in various industries. Figure 3-7 depicts the workflow process followed in this stage:

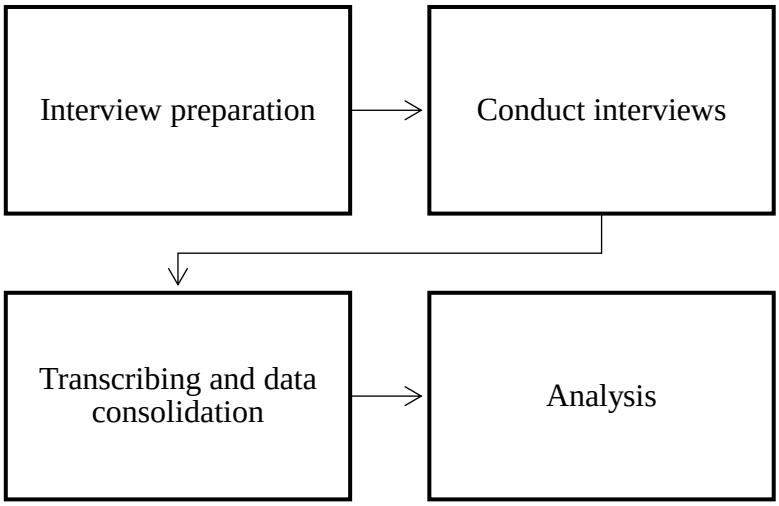

Figure 3-7 Workflow Process for the Qualitative Stage

3.4.1 Interview Preparation

The researcher prepared an interview form to be used in the interviews to set the scene and provided a list of questions to be used during the interview to ensure fruitful and structured interviews. The information sheet and the consent form were communicated to the participants ahead of time to set their expectations of the interview. The questions of the interview were open-ended and related to the first stage of the research. They gave the participants the freedom to express their feedback and to reflect on their experiences.

The researcher used a previously prepared form to conduct the interviews with the participants. The form listed the interview questions and was useful in structuring the interview. However, each interview, as an interaction between the interviewer and the interviewee, allowed space to gather more views and insights. An interview is a co-production process of ideas, which results in more fruitful discussions. Moreover, the questions were open-ended, giving the participant more space to elaborate in a detailed way and reflect on his or her experiences.

The researcher ensured that the environment was appropriate to conduct the interview, and he communicated with the participants to arrange for the timing of the interviews. These steps were implemented to guarantee a good interview process and to gather the best responses to the questions.

3.4.2 Conduct Interviews

The second stage of the research consisted of a set of interviews with managers who agreed to be interviewed (based on a response in the questionnaire). Therefore, the sample was quantitative. The researcher aimed to conduct six interviews. However, 10 interviewees accepted to be interviewed, which demonstrates an interest in the research topic. All interviewees were Arabs, and the interviews were conducted in Arabic; however, English terms were used in the discussions as they were more understandable when used in English. The objective of these interviews was to explore the automation of processes (IT factors) in greater detail. Based on the interviews, the researcher identified a set of actions or recommendations that could be used by managers to capitalise on the IT factors and enhance the implementation activities of the participants' organisational strategy. Additionally, the researcher provided advice on how to manage the changes that may result from applying those actions. The researcher conducted the 10 interviews using the available communication tools: Skype or phone calls. The researcher documented the ideas and arguments that were discussed in English to identify the actions and recommendations.

Prior to conducting the interview, the researcher sent an information sheet to set the expectations of the participants and provide them with the required information regarding the research. Moreover, the researcher sent a consent form to the participants to obtain their signatures. The researcher conducted 10 interviews with managers who work at different public organisations in various industries (i.e. education, health, tourism and several others) of assorted sizes. The managers have experience in the public sector and are engaged in strategy implementation activities in their organisations. The researcher conducted the interviews using an Internet communication tool (Skype) and phone calls. The length of the interviews varied, reflecting the depth of the managers' tacit knowledge. Table 3-2 provides brief information about the interviews.

Interview Number	Interviewee				Interviewee's Organization		Interview	
	Position	Age	Gender	Highest level of education	Size/ Number of employees	Industry/ Services	Length (Hours)	Communication Type
1	Manager	21–30	Male	Bachelor	51-100	Energy Industry	1.5	Skype
2	Manager	41–50	Male	Master	Above 500	Postal Services	1	Skype
3	Manager	31–40	Female	Master	Above 500	Tourism	1	Skype
4	Program Manager	31–40	Male	Master	Above 500	Health	1	Skype
5	Project Manager	31–40	Male	Bachelor	101–300	Municipality	1	Skype
6	Manager	31–40	Male	Bachelor	Above 500	Postal Services	1	Telephone
7	Manager	41–50	Male	Bachelor	101–300	Education	1.5	Skype
8	Manager	41–50	Male	Master	Above 500	Security	1	Skype
9	Program Manager	31–40	Male	Master	Above 500	Communication	1.5	Skype
10	Senior Manager	41–50	Male	Bachelor	Above 500	Security	1	Skype

Table 3-2 Brief Information About the Interviews

In the beginning, the researcher attempted to break the ice with the participants and provided them with an introduction to the research and its objectives. Moreover, the researcher updated the participants with the results of the first stage, relayed expectations and objectives of the interview and confirmed that their identities would be kept anonymous. Additionally, the researcher attempted to motivate the participants by stating the importance of their contribution to the research and the strategy implementation practice. The interview discussion began by asking the participants to provide details about their organisation and their role, particularly in activities related to strategy implementation.

The major points discussed during the interviews were the different aspects of the IT factors and the managers' insights and views on this matter, the actions required to capitalise on the IT factors with greater impacts and the managers' advice on the proper mechanisms to manage changes generated from applying the actions.

The interviewees permitted to record the interviews to allow for a better analysis of the provided information. At the end of the interviews, the researcher thanked the participants and confirmed that the results of the research would be sent to them when completed.

3.4.3 Transcribing and Data Consolidation

The interviewed participants provided various insights on how to utilise IT to improve strategy implementation activities in their organisations. Moreover, the participants provided different recommended actions to managers on how to adopt the IT and the best ways to implement it. The researcher efforts in this step were to transcribe the interviews and to consolidate the ideas into a database in one centralised location, along with all of the collected documentation. This consolidation helped in the analysis and revealed links between the different ideas. All the information and recordings were kept in a secure place, and the researcher took the necessary precautions of creating a password to access the files.

To consolidate the information, the researcher used a mind-map tool, which helped to identify the themes of the responses and provide a big picture of the overall set of interviews. The main categories of the mind-map were linked to the major points mentioned in the previous section.

3.4.4 Analysis

In this step, the researcher began the analysis activities of the transcribed and consolidated data by locating patterns and connecting the dots of the different ideas that were presented by the interviewees. The analysis was rooted in the connection between the researcher's deep critical thoughts about the ideas, the reflection on his experiences in practice and the theories presented in the literature. Such experience helped the researcher understand the public sector in the KSA and gain several insights about the obstacles that face the strategic implementation practice in this country. Moreover, this also helped the researcher build a vast network with the management layer in the public organisations, which allowed him to conduct this research and to obtain information about the strategic implementation progress within these organisations. Additionally, the interaction between the researcher and the managers in these organisations provided the researcher with a base for thinking about the research problem and how the adoption of IT can mitigate this.

The researcher used a mind-mapping tool to define patterns found in the interviews and to link the ideas to one another. Moreover, the mind-mapping tool helped reveal various dimensions of the same idea. Finally, the researcher assembled the related information under its respective themes and prepared the findings. For example, the insights related to strategy implementation

were gathered in one section, and the insights related to the impact of IT on strategy implementation were gathered in a different section. Following this, the researcher critically analysed the results and reflected on them to determine the correct actions and recommendations that managers must follow to improve implementation activities.

Figure 3-9 is an example of the mind-map of one of the interviews that was conducted.

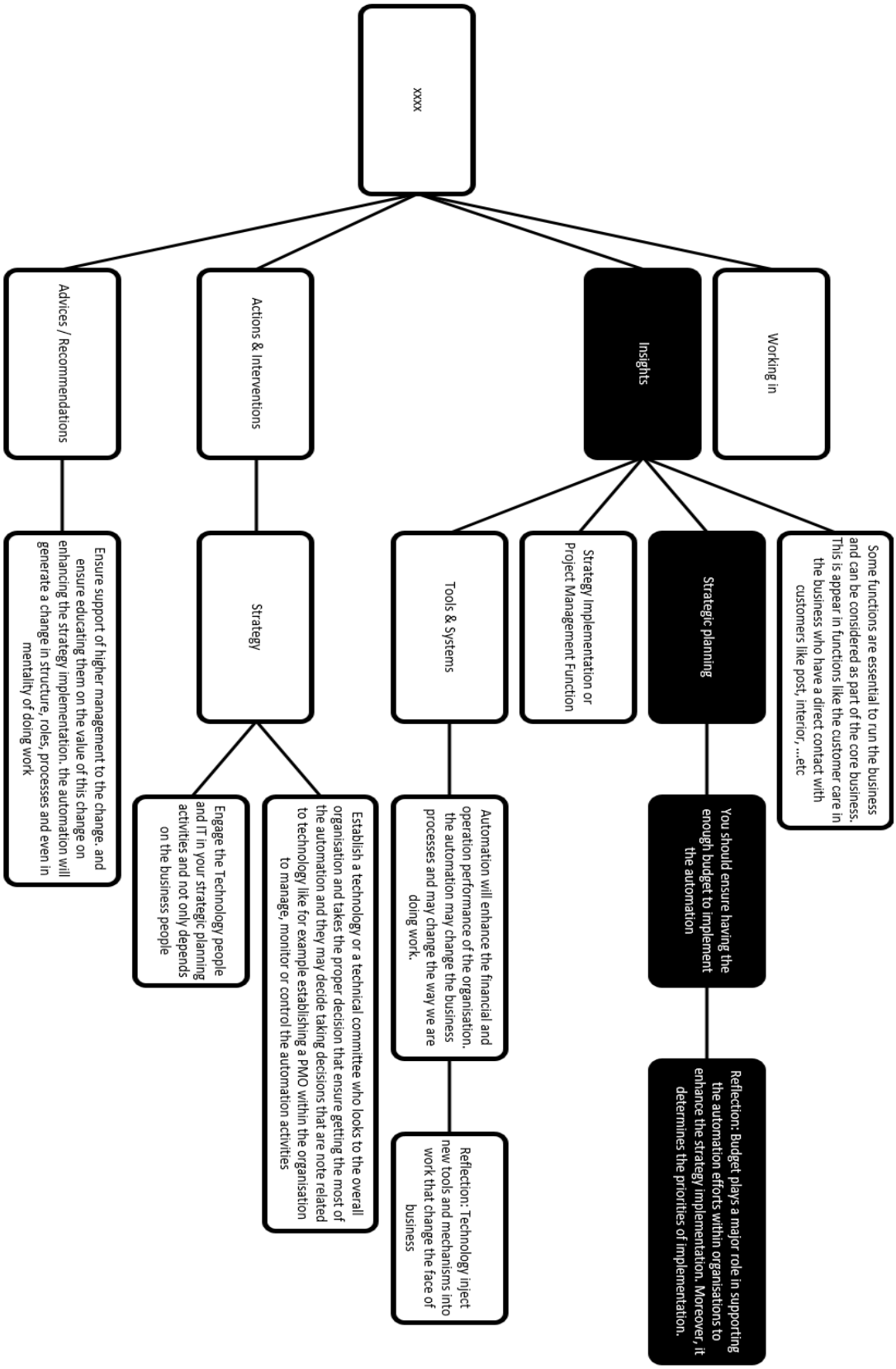

Figure 3-8 An Example of a Mind-Map of One of the Interviews

The mind-map in Figure 3-9 represents the analysis of one of the conducted interviews. In the first branch (working in), the researcher records the information about the interviewee and the public organisation he or she is working in. In the second branch, the research listed the insights that the researcher gathered from the interviewee and attempted to group them into categories, such as strategic planning and strategy implementation. As an example to clarify this (the branch in black), strategic planning is one theme used to group the related insights. The insight received from the interviewees is 'You should ensure having the enough budget to implement the automation'. A reflection on this is that budget plays a major role in supporting the automation efforts within organisations to enhance strategy implementation. Moreover, it determines the priorities of implementation.

The third section is related to the recommended actions by the interviewee regarding how to utilise IT to improve strategy implementation. The last section addresses the advice resulting from the interview to manage the change that is expected when applying the provided actions in the organisation and using IT to support the implementation activities.

The final step of the research, which the researcher considers the most critical as it represents the fruits of the research, ensures he achieved the objectives of the research by constructing an action plan that managers should follow to increase the benefits of IT factors in improving strategy implementation. Moreover, the action plan is supplemented with a set of steps to manage the changes that will be generated due to its adoption.

3.5 Research Methodology Synopsis

In this chapter, the researcher discusses and addresses the different methods used in the two stages of this study. The conceptual model and framework of the study are addressed, along with the researcher's philosophical position. Next, the researcher discusses the methodological approach and the design of the research, along with the interactions between the research stages. A set of tools was used for research and analysis, including a questionnaire tool for conducting an electronic survey to explore the main research building blocks. Analytics tools provided by *SurveyMonkey* and SPSS were used to analyse the gathered information. Additionally, electronic tools were used to conduct and record the interviews, and a mind-mapping tool was used to perform the analysis of the collected interview responses to define the different themes of the insights and ideas.

The population of this study was the middle management staff within public sector organisations of Saudi Arabia. Middle management addresses the tactical level; it refers to the

managers who sit on the second level, below top management, or CxO level (CEO, CFO, CTO and others), but above the level of typical employees. This study includes department managers, project and programs managers, directorate level managers and others with similar tenures. This research targets the public sector in Saudi Arabia, so the primary organisational structure is functional, which is the most stable and traditional. However, other structures exist, such as project-based structures or mixed structures, which are organised around projects and functions (Guide, 2004). Therefore, project managers are included in the study to cover the mixed structure that exists in some Saudi organisations. Higher levels of management, team leaders and typical employees, such as team members, operators, clerks and secretaries were excluded from this study. The sample of this study is based on a database with contact details of many people working in the public sector in Saudi Arabia that the researcher collected during his work life. This database facilitated the data collection for this research and helped target the correct sample. By asking members of this contact list to participate in the study, the researcher assembled a representative sample of the population that covers a broad spectrum of organisations from the public sector in Saudi Arabia. The researcher's relationship with the prospective participants encouraged them to provide more insights into their work and gave them more confidence in the value of the research.

The research was conducted in Saudi Arabia, where Arabic is the first and official language used by the government. However, the communications and documentation for this research are in English. To ensure more clear responses from the participants, and because the researcher can speak both languages (English and Arabic), a version of the questionnaire and any required explanations (verbal/written) were provided in Arabic. Additionally, part of the interview discussions and arguments were held in Arabic to obtain the most benefits. Overall, the researcher received 68 responses (sample size) from the 203 mid-level managers approached, representing 39 out of 61 public sector organisations in Saudi Arabia, which indicates a 33.49 per cent response rate.

The researcher conducted 10 interviews with managers in public organisations to obtain more insights on the impact of automation on the strategy implementation within their organisations and to form the action plan, which is the ultimate goal of this research.

4 Findings

In this chapter, the researcher presents the results and findings of this action research study, which follows the mixed methods (quantitative and qualitative) approach. The research, as described in previous chapters, has two main stages: the quantitative stage, in which the researcher explores the different drivers and IT factors that impact strategy implementation effectiveness, and the qualitative stage, in which the researcher defines the actions that are required to capitalise on IT automation factors that have the utmost impact on strategy implementation. In this process, the quantitative data show different findings that shape the direction for the subsequent qualitative work.

This chapter consists of four sections. The first section describes the impact of the context on the research findings and the participants in the survey and the interviews. This section sets the scene of the research project and moves the reader to the research environment to increase the understanding of the research findings.

The second section depicts the quantitative findings based on the survey conducted. Additionally, this section provides a descriptive statistical analysis of the data to describe the trends and relationships among the different variables.

The third section shows the qualitative side of the research and provides an analysis of the qualitative data. The analysis of the qualitative data depends on the information collected during the interviews with the selected participants.

The fourth section provides the full picture and opens the discussion of the quantitative and qualitative results. Additionally, in this section, the researcher begins to craft the actions of this action research project to ensure that a clear roadmap will be provided to the organisations' managers that may help them in successfully executing their strategy to improve their organisational performance.

4.1 Impact of Context on the Research Findings

The researcher has worked in Saudi Arabia for more than 18 years in various industries and organisations and with clients from assorted sectors; however, the majority have been in the public sector. During his career, the researcher has interacted with different levels of management with various approaches and mechanisms for managing their organisations. Moreover, the researcher has experience with organisations of assorted sizes and types (small, medium, large, well-organised, loosely-organised, those with a clear strategic direction and those with no strategy). Such experience helped the researcher understand the public sector in

the KSA and to gain several insights about the obstacles that face the strategic implementation practice in this country. Moreover, this also helped the researcher build a vast network with the management layer in the public organisations, which allowed him to conduct this research and to obtain information about the strategic implementation progress within these organisations. Additionally, the interaction between the research and the managers in these organisations provided the researcher with a base of thought about the research problem and how the adoption of IT can mitigate this.

Furthermore, the researcher's technical background resides in the IT industry as he has undergraduate and postgraduate degrees in IT-related areas. Additionally, he has occupied several managerial and executive roles and has earned numerous professional certificates (such as a project management professional certificate from the Project Management Institute: www.pmi.org). This background, along with his extensive experience in management, should enrich the research work.

Based on the researcher's accumulation of experience and knowledge, he has determined that IT is a major player in transforming the paths that organisations can take in conducting their businesses and implementing their strategies.

Based on the above reflections and experiences, this research topic came to life. The researcher decided to conduct this research because he believes action research project is required to improve the practice of strategy implementation using IT, demonstrate the importance of IT in strategy implementation activities and explore the IT dimension in more detail to propose well-established actions to help management in their efforts to enhance their organisations' strategy implementation activities. Accordingly, the ultimate goal of this research is to add an actionable and practical outcome to the management knowledge that provides guidelines and recommendations to organisations' management in their efforts towards strategy implementation.

The findings of this research are in the form of recommended actions that can be taken by managers to improve strategy implementation by capitalising on IT automation factors that have a greater impact. Some of the recommendations are based on the analysis and interpretation of the data, and others came directly from the data. The ultimate objective in implementing these actions is to improve overall organisational performance. At the personal level and as a practitioner and consultant in the strategic management field, this research helps shape and enhance the researcher's consulting skills, which can be achieved by considering the

obstacles faced by managers in shaping the proposed strategic management tools to clients and how those tools will help them face their problems.

Moreover, this study helps develop well-established consulting products for the researcher's organisation and to define the most critical portfolio of products to have in our practice to provide real value to clients. This is likely to improve the performance of his firm and direct it to capitalise on the proper consultancy products. In other words, the results of this study are considered an input to the researcher's own practice's strategic planning and portfolio management process.

Additionally, the discussions and interactions with managers during the interview process enhanced their understanding of the strategy implementation issues and motivated them to reflect on their experiences, which may enhance their performance. In their feedback, some participants mentioned that they acquired new insights into their work and opened their minds to new work dimensions. This study provides middle-level managers with recommended actions rooted in the tacit knowledge of other practitioners working in strategic management and implementation. Managers may use this new knowledge for future actions. Therefore, this study provides practical actions connected with actual work that has been adopted and used by managers.

4.2 Quantitative Analysis and Findings

The first stage of the research project was to collect the quantitative data that would explore the research dimensions and provide input for the second stage. The researcher collected the data by conducting a survey using an online questionnaire as the primary tool. To ensure that the researcher covered all the required aspects, he performed a pilot test of the questionnaire by sending it to colleagues to obtain their feedback on the questions. In this section, the researcher presents the findings and explicates them with a link to the research building blocks. The researcher used the descriptive statistical analysis to explore the strategy implementation drivers and IT factors resulting from the literature review to demonstrate their impact on strategy implementation effectiveness and organisational performance. At the beginning of the discussion, the researcher presented the categorical variables, which will provide information about the anticipated managers in the research.

4.2.1 Nominal Variables Analysis and Findings

The researcher addresses the nominal or the categorical variables. Those variables have no numeric values and have two or more categories without any order. We began the analysis with

the descriptive statistics in order to gain a better understanding of the results and variables. For the categorical variables, the researcher used the frequencies analysis, which is suitable for such kinds of variables. Accordingly, the researcher obtained the results in Table 4-1 based on the questionnaire and the codebook, which resulted in eight categorical variables.

Sr.	Variable	Value with the highest response rate	Percentage	Value with the lowest response rate	Percentage
1	Gender	Male	89.7	Female	4.4
2	Strategy Training	No	56.3	Yes	52.9
3	Current Title	Manager Senior Manager Director	42.6 14.7 14.7	GM Assistant /Teacher	1.5
4	IT Function in Organisation	Reporting to CEO	57.4	Function under another Business Unit (BU)	35.3
5	Age	31–40	54.4	21–30	5.9
6	Education	Bachelor's	63.2	High School/ Doctoral	1.5
7	Organisation Employees	Above 500	69.1	101–300	4.4
8	Experience	6–10	25	1–5	11.8

Table 4-1 Nominal Variables Analysis

Accordingly, we can obtain the following insights about the participants in this research. From the gender variable, the results show that most of the respondents are males, with a percentage of 89.7, indicating that most of the management layer in the public sector organisations in Saudi Arabia are males. From the strategy training variable, which determines whether the respondent has ever been trained in strategic planning or strategy implementation, the results show that half of the management layer (52.9 per cent) in Saudi public organisations was trained in strategic planning or strategy implementation, and the second half was not, indicating that a lack of training and professional development still exists in strategic management in Saudi public organisations. From the current title variable, which determines the current title of the respondents, the results show that more than half are in middle management positions (manager, senior manager and director), with a total percentage of 72. These results provide confidence for the research as the targeted sample is the middle management responsible for driving the strategy implementation vehicle. From the IT function in organisation variable, which examined where the IT function sat in the organisational structure, the results show that the IT function is considered important as they report directly to the CEO or the head of the organisation, and 57.4 per cent of organisations reported such. These results indicate that IT

function is considered a strategic function that helps improve organisational performance in Saudi public organisations.

With respect to the age variable, the results show that more than half of the respondents are between 31–40 years old, at 54.4 per cent. As this is a rentier state, this age is expected as employees can reach management levels faster than other countries. With respect to the education variable, the results show that most of the respondents have earned a bachelor's degree, at 63.2 per cent, and the remainder have earned a higher degree. This indicates that the management layer is well educated, and the researcher can assume that they can perform their duties professionally. Moreover, as a rentier state, Saudi Arabia is one of the largest countries in terms of education spending. With respect to the number of employees in the organisation, the results indicate that there are different sizes of public organisations. However, 69.1 per cent of the organisations are large, with a taskforce above 500 employees. This is expected as governmental organisations have a taskforce of 1.2 million (General_Authority_of_Statistics, 2017). Concerning the experience variable, which tests the number of years of experience of the respondents, the results show that most middle management employees have 6–15 years of experience, with a total percentage of 47.1. This is a reasonable number of years to be in the middle management layer. Moreover, these results align with point number 5 above, which shows that more than half of the respondents are between 31–40 years old.

4.2.2 Ordinal Variables Analysis and Findings

The quantitative part of this research aims to explore the different building blocks of this research, as described in chapter 2

Therefore, this section describes the analysis of the ordinal variables based on the codebook.

Strategy Implementation Importance Variable:

The first variable is the strategy implementation importance, the results of which are in Table 4-2.

Sr.	Variable	Sr.	Items	Mean	Rank
1	Strategy Implementation Importance	1	I have personally been involved with strategy implementation in my current job.	1.79	2
		2	My organisation is better at strategic planning than strategy implementation.	2.76	7
		3	There is a gap between my organisation's strategy and its implementation.	2.38	3
		4	My organisation is effectively implementing its strategy.	2.65	6
		5	Strategy implementation is more important to my organisation than strategic planning.	2.53	4
		6	Strategic planning is more important to my organisation than strategy implementation.	2.63	5
		7	Successful implementation of strategy may enhance my organisation's performance.	1.4	1

Table 4-2 Strategy Implementation Importance Variable Analysis

Based on the results, the researcher can conclude the following:

- The mean of all responses is between 1.40–2.76, which is below 3, the mean of the answers, indicating an overall agreement with most of the statements.
- Rank 1—The lowest statement according to the mean measure is 'Successful implementation of strategy may enhance my organisation's performance', with 95 per cent agreement. This indicates a strong belief in middle management in organisations that strategy implementation may enhance overall organisational performance. In other words, managers consider that the successful implementation of strategy may enhance their organisation's performance. This aligns with several studies in the literature that indicate that strategy implementation has a positive impact on organisational performance ((Elbanna and Fadol, 2016, Walker, 2013, Andrews et al., 2011)
- Rank 2—The statement 'I have personally been involved with strategy implementation in my current job', at 79.4 per cent agreement, indicates that most of the participants are engaged in strategy implementation activities in their work. This improves the validity of the research results.

- Rank 3—The statement ‘There is a gap between my organisation’s strategy and its implementation’, with 63.2 per cent agreement, indicates a strong belief in a problem and a gap between the planning and implementation of an organisation’s strategy. This supports the motive of this research, which is this gap and the focus on planning more than implementation.
- Rank 4—The statement ‘Strategy implementation is more important to my organisation than strategic planning’, with 52.9 per cant agreement, 25 per cent neutral and 22 per cent disagreement, indicates that middle-level management realises the importance of strategy implementation. Moreover, they agree that implementation is more important than planning.
- Rank 5—'Strategic planning is more important to my organisation than strategy implementation’, with 50 per cent agreement and 32.4 per cent disagreement, indicates that middle management still supports the idea that planning is essential to organisations. Additionally, 50 per cent find it more important than implementation.
- Rank 6—'My organisation is effectively implementing its strategy’, with 48.5 per cent agreement, 26.5 per cent neutral and 25 per cent disagreement, indicates that middle management is not entirely confident in their organisation's strategy implementation.
- Rank 7—The statement that obtained the highest mean was ‘My organisation is better at strategic planning than at strategy implementation’, with 51.5 per cent agreement and 32.4 per cent disagreement, which indicates that management does not fully believe that planning is more important than implementation.

Strategy Implementation Drivers Variable:

The second variable is strategy implementation drivers. For this variable, the researcher obtained the results in Table 4-3.

Sr.	Variable	Sr.	Items	Mean	Rank
2	Strategy Implementation Drivers	1	Having staff who understand the organisation’s strategy	1.92	6
		2	Support and clear strategic directions from the organisation’s management and leaders	1.8	3
		3	Alignment between human resources goals with the organisation’s strategy	1.97	8
		4	Alignment between human resources incentives with the organisation’s strategy	2.12	10

		5	Alignment between organisational culture and the strategy	2.00	9
		6	Well-written or formulated strategy	1.92	6
		7	Well-established controls of strategy implementation	1.85	4
		8	Support from information technology (IT) to strategy implementation activities	1.6	2
		9	Having a coordinated body for strategy implementation, such as a projects management office (PMO) or a strategy execution office (SEO)	1.51	1
		10	Having staff trained in project management methods (such as Prince II and PMI)	1.91	5
		11	Hiring a consultant to support strategy implementation activities	2.17	11

Table 4-3 Strategy Implementation Drivers Variable

The results show that:

- There is a tendency to agree with all the strategy implementation drivers as the mean measure is near 'strongly agree' and 'agree'. The mean of all responses is between 1.51–2.17, which is below 3, the mean of the answers.
- The number one ranked driver is 'Having a coordinated body for strategy implementation, such as a projects management office (PMO) or a strategy execution office (SEO)'. This statement agrees with scholars who indicate the importance of governance on strategy implementation (Kaplan and Norton, 2005, Gadiesh and Gilbert, 2001, Robertson et al., 2013).
- The second important driver is 'Support from information technology to strategy implementation activities', which shows the importance of IT in an organisation's strategy implementation. Several scholars indicate the importance of IT on strategy implementation systems (Asato et al., 2011, Zubovic et al., 2014, Yeh et al., 2012, McLaren et al., 2011)

IT Factors:

Table 4-4 shows the variables that are the IT factors that positively affect strategy implementation activities.

Sr.	Variable	Sr.	Items	Mean	Rank
3	Positive Information Technology Factors	1	Having an automated system(s) for core business	1.49	1
		2	Having an automated system(s) for support functions, such as finance and human resources	1.63	2
		3	Having an automated system(s) to manage strategic management function and monitor performance targets (financial and strategic)	1.74	5
		4	Having an automated communication tool(s) (email, Yammer etc.)	1.69	3
		5	Having staff who are experienced in using the information systems and automated tools	1.72	4
		6	Using a technology consultant(s) to support automating the strategy implementation activities	2.00	6

Table 4-4 Positive Information Technology Factors

The results show that:

- Participants agree on the positive impact of the IT factors on strategy implementation activities. However, the IT factors range in their impact.
- The order of the IT factors from the most positive impact on strategy implementation to the lowest is:
    1. Having an automated system(s) for core business
    2. Having an automated system(s) for support functions, such as finance and human resources
    3. Having an automated communication tool(s) (email, Yammer etc.)
    4. Having staff who are experienced in using the information systems and automated tools
    5. Having an automated system(s) to manage strategic management function and monitor performance targets (financial and strategic)
    6. Using a technology consultant(s) to support automating strategy implementation activities

Table 4-5 presents variables that are the IT factors that negatively affect the strategy implementation activities.

Sr.	Variable	Sr.	Items	Mean	Rank
4	Negative Information Technology Factors	1	Having no or partially automated systems for core business	2.08	2
		2	Having no or partially automated systems for support functions, such as finance and human resources	2.16	4
		3	Having no or partially automated systems to manage strategic management function and monitor performance targets (financial and strategic)	1.89	1
		4	Having no or partially automated communication tools (email, Yammer etc.)	2.25	5
		5	The staff are not experienced in the use of information systems and automated tools	2.14	3
		6	Not using a technology consultant(s) to support automating strategy implementation activities	2.52	6

Table 4-5 Negative Information Technology Factors

The results show that:

- Participants agree on the negative impact of not having IT factors on strategy implementation. However, the IT factors range in their impact.
- The order of the IT factors from the most negative impact on strategy implementation to the lowest is:
    1. Having no or partially automated systems to manage strategic management function and monitor performance targets (financial and strategic)
    2. Having no or partially automated systems for core business
    3. The staff are not experienced in the use of information systems and automated tools
    4. Having no or partially automated systems for support functions, such as finance and human resources
    5. Having no or partially automated communication tools (email, Yammer etc.)
    6. Not using a technology consultant(s) to support automating strategy implementation activities

The above positive and negative impacts of the IT factors were gathered based on the participants' feedback and views.

Table 4-6 provides a score for each IT factor based on its impact (positive or negative) on strategy implementation activities. The highest score is 6, and the lowest score is 1.

Information Technology Factors Importance Scores Matrix			
Importance Score	Information technology (IT) factors with a positive impact	Importance Score	Information technology (IT) factors with a negative impact
6	Having an automated system(s) for core business	6	Having no or partially automated systems to manage strategic management function and monitor performance targets (financial and strategic)
5	Having an automated system(s) for support functions, such as finance and human resources	5	Having no or partially automated systems for core business
4	Having an automated communication tool(s) (email, Yammer etc.)	4	The staff are not experienced in the use of information systems and automated tools
3	Having staff who are experienced in using the information systems and automated tools	3	Having no or partially automated systems for support functions, such as finance and human resources
2	Having an automated system(s) to manage strategic management function and monitor performance targets (financial and strategic)	2	Having no or partially automated communication tools (email, Yammer etc.)
1	Using a technology consultant(s) to support automating the strategy implementation activities	1	Not using a technology consultant(s) to support automating strategy implementation activities

Table 4-6 Information Technology Factors Importance Scores Matrix

Consequently, the researcher multiplied the score of the positive impacts with the score of the

negative impacts in order to determine the score for IT factors and assign this a rank based on the final score.

Information Technology Factors Ranking			
Sr.	Factor	Grade	Rank
1	Automated system(s) for core business	6*5 = **30**	**1**
2	Automated system(s) for support functions, such as finance and human resources	5*3 = **15**	**2**
3	Automated communication tool(s) (email, Yammer etc.)	4*2 = **8**	**4**
4	Staff who are experienced in using the information systems and automated tools	3*4 = **12**	**3**
5	Automated system(s) to manage strategic management function and monitor performance targets (financial and strategic)	2*6 = **12**	**3**
6	Technology consultant(s) to support automating strategy implementation activities	1*1 = **1**	**5**

Table 4-7 Information Technology Factors Ranking

This table ranks the IT factors based on their impact and shows the following results ordered based on their rank:

- Rank 1—Automated system(s) for core business factor
- Rank 2—Automated system(s) for support functions, such as finance and human resources factor
- Rank 3—Automated system(s) to manage strategic management function and monitor performance targets (financial and strategic) factor and staff who are experienced in using the information systems and automated tools factor
- Rank 4—Automated communication tool(s) (email, Yammer etc.) factor
- Rank 5—Technology consultant(s) to support automating strategy implementation activities

In this study, the researcher primarily concentrates on the details of the IT with greater impacts: the automation factors for the business and support functions in conducting the qualitative stage, which are supported by various scholars (Ardakan et al., 2010, Dimitrios et al., 2013).

The findings of the quantitative stage identify and rank the IT factors that positively impact the strategy implementation activities. Next, the IT factors (automated system(s) for core business and automated system(s) for support functions, such as finance and human resources) were input into the next stage, in which the researcher dug deeper into the details of those factors to determine how their benefits and their impacts could be enlarged. These factors were the main subjects for the interview discussions with the managers.

4.3 Qualitative Analysis and Findings

As stated, the researcher used a mind-map as the analysis tool for the collected interviews' information. To ensure a more unobstructed view of the analysed data, the researcher divided the collected information into three main sections, which helped in coding the gathered information from the conducted interviews:

- Insights: In this section, the researcher lists all the insights he gathered from the interviews that represent the reflections of the interviewees (the managers) on their experiences in Saudi public organisations, how they implement their strategies and the role of IT automation factors in the implementation.
- Challenges: In this section, the researcher lists all the challenges in strategy implementation from the IT angle.
- Actions: In this section, to utilise IT automation factors in improving strategy implementation activities, the researcher lists all actions that the interviewees recommended for obtaining the most benefits of using automation within Saudi public organisations and how to capitalise on them.
- Advice: In this section, due to changes that may be triggered in Saudi public organisations when applying the actions, the researcher lists the advice from the interviewees for managing changes.

The mind-map of the three sections helped the thinking efforts and to connect the dots between different ideas and insights.

The following sections provide the findings based on the above analysis, along with the researcher's reflections on the findings and selected quotes from the interviews.

4.3.1 Insights

During the interviews, the researcher attempted to allow the participants a wide area in which they could provide more insights and freedom in their thinking. In the following, the researcher gathered those insights, along with reflections based on the different themes.

General Insights

In Saudi Arabia, the government has established a separate entity that is responsible for enhancing and measuring the maturity of government entities based on various dimensions and measurements, such as automation of processes, enhancing government procedures and providing better services. This entity certifies other government entities in their excellence in providing government services. Moreover, this entity provides recommended standards and best practices that must be followed by government entities. Additionally, this entity reports on the performance of the other government entities in annually published reports. As a reflection, this insight indicates the importance of automation for Saudi public organisations in performing their duties and improving their organisational performance.

Although some organisational functions are not part of the core business, they are essential to run the business and can be considered part of it. This appears clearly in functions, such as customer care, in the type of business that necessities direct contact with customers, such as the postal service and the Ministry of the Interior. As a reflection, managers should be cautious when defining the core business of their organisation, mainly if it affects the financial decisions within the organisation. IT function is not a core business function but has a greater impact on organisational performance.

Automation means establishing an automated process, rather than a manual one, with the help of IT. An example of automation is having clients submit their applications using an online form, rather than submitting them manually on paper. However, automation of the organisation is not only a single project; it is a set of improvements within the organisation that includes processes, systems, skills and knowledge. Automation does not only involve bringing in new systems; it is a set of initiatives that follows a particular sequence. This type of automation enhances the overall performance of the organisation financially and operationally and adds to employees' satisfaction. Moreover, investing in automation may positively impact the implementation of corporate and business strategies plans. As a reflection, automation has different aspects of impact on the organisation: financial, operational and employee satisfaction.

Today, there is a trend in converting government entities to ‘smart’ ones by injecting IT in all aspects of the organisation and providing all digital services. Moreover, automation may improve the organisational return on investment (ROI) by reducing resources and operational costs. It enhances services and opens the door for innovation to bring in new services. As a reflection, such movements may help in realising the importance of IT in strategy implementation and underlie the idea of this research.

Strategic Planning-Related Insights

Several managers indicated that a consulting company developed their organisations' strategy. This insight indicates that consulting firms contribute to developing strategic plans of some organisations in Saudi public organisations.

Although consulting firms can build good strategies for organisations, they should provide extensive communication of the strategy and link it to employees’ incentives and careers. As a reflection, the strategy should be adequately communicated to deliver the correct message to the employees who will implement it.

Several managers indicated that their organisations in the Saudi Public sector have long-term strategies (5- or 10-year plans). This insight indicates that several organisations have established a strategic plan for their organisation, and strategic planning efforts have taken place.

Managers and practitioners speak quite a bit about strategic planning, but they overlook the implementation of this strategy. This insight supports the thinking in the literature that a gap exists between strategic planning and implementation as strategy implementation is an area that is overlooked by managers and practitioners, and it requires more attention from them.

A government entity’s strategy should align with the overall government strategy. It is essential to have all government organisations’ strategies and implementation efforts aligned. This indicates that having all strategies aligned may help in the alignment between all functions and parts of the government, which will result in providing the best for the people.

Lastly, firms must ensure there is an adequate budget in the strategy to successfully implement new automation. Therefore, the budget plays a significant role in supporting automation efforts within organisations. Moreover, it determines the priorities of implementation.

Integration-Related Insights

Saudi government entities should have coordination and communication when they build their

strategies and automate their processes to ensure better integration and better services for their customers.

The government in Saudi Arabia recognises a lack of integrated systems within their government entities, and they are working towards unifying the intersecting systems and unifying the technology within governmental systems. Additionally, locating resources to work on and support these systems may be easier than making customised systems. A simple example of integrated systems is to create a unified human resources system that manages all human resources-related processes because human resources processes are the same in all government entities.

Project Management- and Implementation-Related Insights

Saudi public organisations have a function to manage implementation activities, such as a PMO. A PMO is a function within an organisation that follows up on the implementation of strategy using the best practices in project management. This function plays the role of coordinating all the project management and implementation activities within an organisation. Having such a function within organisations may provide a more unobstructed view of the actual picture of strategy implementation.

A PMO ensures assigning the correct strategic initiative to the correct business function based on the strategic mandate as stated in the strategy. A PMO links all the work that is done in the organisation with the strategy. Firms must ensure alignment between the initiatives and strategy to align all the work in the organisation. Doing so may lead to work that provides benefits to the organisation and improves performance.

There is a strong connection between strategy implementation and project management. Project management is a tool and practice that ensures successful implementation. Project management is the vehicle that supports efforts in successfully implementing strategy projects and initiatives.

Tools- and Systems-Related Insights

Several organisations have tools to monitor strategy implementation activities, such as balanced scorecard and project management tools. These tools help business functions to monitor implementation and identify their roles and mandates.

The core tools and support systems should be integrated to obtain the most significant benefits of IT and the implemented systems. Having all systems integrated in a firm can link all aspects of the organisation to the strategy implementation. For example, linking an employee's career

objectives with the organisation's strategic objectives will help the employee to be promoted or compensated. Therefore, it is essential to integrate systems in the implementation of strategic activities. All automated systems in the organisation should be integrated into one system to implement the strategy successfully.

Saudi public organisations have different systems with different technologies for business and support functions. The degree of complexity of systems relates to the nature of the business and the developing journey of the IT within the organisation. Therefore, some organisations may have very different systems with different technologies. However, other organisations may have a unified system with a unified technology. As a result, this leads to a large number of systems with different technologies in an organisation, which requires a large budget to support them and increasingly sophisticated technology (resources, processes and systems). Unifying the different technologies or using only one technology depends on the risks, management process and loss/benefits analysis.

Several Saudi public organisations have systems that play the role of integration between other systems. These represent the integration layer of a unified interface. Organisations do this to unify the work processes and to enhance the business performance. These are ready-made systems that are specialised for integration. Integrating systems may improve employees' performance by decreasing the complexity in the technology and automated systems.

Automation enhances the organisation's financial and operations performance. Automation may change the business processes and the way people do their work. IT is an essential factor in doing business, and it is not a support function; it is an enabler for business. IT injects new tools, processes and mechanisms into the work environment that change the face of business and the way it provides services to clients.

Automated systems should have the latest versions and updates in technology to provide the best services. Moreover, automation does not involve converting current processes from manual to electronic means; it means enhancing the processes, introducing new ways of doing work, improving the quality of work and speeding up the delivery of services. Automation enhancements will bring new features, tools and mechanisms to the workplace, so the appropriate human resources must be available to use these technologies.

Having automation helps employees have more time to scale up their skills and knowledge and improves the operations within the organisation. Automation enhances the skills of employees, which may improve strategy implementation.

In Saudi Arabia, significant initiatives in certain sectors are attempting to unify and automate core business-related systems across the government, including, for example, the electronic health program that aims to automate health processes and services across the government (public health hospitals and clinics, health institutes, health laboratories and others). Another example is the financial system that aims to unify financial transactions and processes across government organisations. Such initiatives may participate in improving the performance of the entire government and align services provided by all sectors within the government.

Having a system to follow up the project execution may help enhance the performance and strategy implementation by monitoring the performance (time, cost, scope and quality). Moreover, this helps the decision-making process. Having an established system to follow the project execution within organisations helps reduce execution time and cost. If an organisation has the correct system, it may help successfully execute the strategy.

4.3.2 Challenges

Implementing the strategy faces several challenges. In the following, the researcher lists challenges to strategy implementation that have been collected from the interviews, particularly those related to the IT aspect.

The strategy implementation activities within an organisation may result in changing the way of work, and employees may resist the change. People get used to doing their work in a certain way over time. IT can change this dramatically, which can make people resistant to the change. Therefore, a change management process should be in place to manage this resistance and to facilitate strategy implementation.

Availability of human resources and having the right capabilities and competencies play a significant role in carrying out the implementation activities. However, recruiting the appropriate skilled resources is a challenge in the public sector due to the restrictions and long processes in the government human resources system. Managers must control this accurately to secure success of the implementation activities.

One of the main challenges in using IT as a driver in the implementing strategy is having different systems with different technologies. A heterogeneous environment may make it challenging to utilise IT in the correct way when implementing the strategy. From another angle, integration of automated systems may generate new issues and dynamics that may cause resistance to adopting new systems, which may affect the implementation of the strategy.

To ensure the strategy is implemented and to enlarge IT's role in this, government organisations must secure the required budgets and consider all factors.

One significant challenge in having IT as a driver for business is the diversity and complexity of the decision-making process within the organisations. IT business has its concepts and language, so decision makers may not understand the real benefits of having IT as a vehicle for running their business.

Another challenge comes from IT. IT is a complex concept that consists of different components with high levels of complexity and dynamics; therefore, the infrastructure should be ready to handle the expected computations and transactions.

4.3.3 Actions

This section discusses the second part of the interview results, in which the researcher provides the managers with actions that can be followed to ensure the best utilisation of the IT factors with greater impacts on strategy implementation. As mentioned above, these factors are the automation of the core systems (e.g. health application and tourism places application), the automation of support functions (e.g. human resources application and assets management application) and investing more into them to have more successful strategy implementation activities and to enhance overall organisational performance. Although most of the actions provided below can be found in the literature, as seen in the literature review chapter, this research provides them in a consolidated view and with evidence from practice within Saudi public organisations. Moreover, they are recommended by the managers who tested and practised them within their organisations.

Management- and Planning-Related Actions

Before introducing IT capabilities and automating the business, a strategy should be in place with a well-formulated plan. Moreover, the strategy should be communicated to all concerned parties and staff.

Get **support and sponsorship from the organisation's leadership** (CxOs and senior management) for the systems automation efforts. Their adoption of these efforts may facilitate the decision-making process and ease implementation. Therefore, it is highly recommended to build a dedicated dashboard that shows the implementation progress for the organisation's leadership.

Organisations (i.e. government entities in the public sector) should clearly **define the core**

business, determine the boundaries and eliminate any non-strategic work. The core business is what organisations are expected to deliver to customers.

Organisations must do a thorough **analysis of their stakeholders**, along with their expectations. Additionally, they must define the requirements for automation. This may help with the planning phase of the automation exercise.

Another aspect that requires attention from managers is the **prioritisation** of the automation portfolio projects. Managers must prioritise automation projects based on their strategic value, budget and available resources.

Managers should take into consideration the **directions, strategies, standards, best practices and policies** set by the government that relate to automation. Typically, government entities responsible for this are those whose core business is IT, such as the Ministry of Information Technology and the Information Technology Regulations authority. Therefore, managers must ensure alignment of their strategy with the overall nationwide government strategy.

Establish an IT or a **technical committee** that supervises the automation initiatives and makes necessary decisions to ensure the most significant benefits of the automation. This committee should have the power to make decisions, whether they are related to IT or not. An example of a non-IT decision is establishing a PMO within the organisation to manage, monitor and control the automation activities.

Engage IT people in strategic planning activities, along with the business people. In doing this, the organisation will consider IT in the early stages of the strategic management lifecycle.

When organisations have a separate strategy for IT, managers must ensure **alignment** between this strategy and the organisation's overall strategy (business/corporate).

Communication is vital for ensuring the smooth flow of information. Communication is the driver for a successful change implementation. Managers should prepare a detailed **communication plan** to handle communications during the business automation.

Managers should seek **others' experiences** in automation implementation. This will help in correctly performing the automation and avoiding mistakes.

Managers should ensure **sufficient funds** to cover all the automation lifecycle stages and all the requirements for successful automation (i.e. software licenses, human resources, support after implementation, operations and consulting fees).

For successful automation implementation, specific projects must be completed to prepare the

environment for the automation. We call these **pre-automation projects**. Examples of such projects are infrastructure projects, human resources training and skills development.

One overlooked aspect of automation is the **management of dependencies**. Managers must ensure that differences between various components (activities, resources, budget etc.) of the automation initiatives and within the external parties/initiatives are managed.

Another aspect that managers must consider is having a defined path of **governance** within the organisation; therefore, the organisation needs a clear **organisational structure**, with defined roles and responsibilities for the assorted functions. Managers must understand the organisation's dynamics and the context that will host the automation activities.

From the project management perspective, managers must establish a clear roadmap and **project plan** for automation to ensure better management, control and monitoring. Moreover, managers must define a set of **key performance indicators (KPIs)** to measure the performance of implementation activities to determine that the automation tasks are achieving what is intended. KPIs are important in giving an organisation's management visibility of the implementation status. In this way, senior management will support the implementation activities and the automation, helping to achieve the targeted KPIs.

Process-Related Actions

Identify the processes within each business function that must be automated and collect all the required information about the business. Moreover, identify all types of processes, such as the end-to-end processes that represent the **supply chain cycles** within the business. It is highly recommended to automate the full lifecycle of the organisation's supply chain and not only part of it.

Ensure that the current **manual business processes** are well established before introducing automation. First, this requires a study and analysis of the process and then **re-engineering** if needed. Reengineering includes changing the process for better performance and ease of use.

When introducing the automation, follow the **standardised processes** that are already implemented in the chosen application. This may facilitate and ease the automation process. Avoiding adding too much customisation to the applications, which will help prevent issues in the future, such as problems with upgrades.

An organisation, especially in the public sector, has relations on the process level with other governmental organisations. Managers must ensure a clear **integration** process with other entities and define this in the early stages.

Resources-Related Actions

Awareness is an essential aspect of automation and helps with buy-in from the organisations' employees. Therefore, employees should be aware of the automation initiatives and the changes that may occur in their organisation to obtain their support and help achieve the intended objectives.

Training is essential for staff that handle the automated systems, and this should be part of the automation project scope. Managers must train their staff on the new systems, especially the automation support function employees, because they will support the core business.

Educate the organisation's management on the value of IT and the role of automation in enhancing the implementation of their strategies and improving the overall performance of the organisation.

Systems-Related Actions

Integrate the support functions systems, such as the strategic management application, with core business systems. Thereby, the strategic management application will have real data from the core business on the progress and performance of the business. For example, the health application can provide input to the strategic management application on the progress of the health projects implementation. Doing this helps provide **live data** with no delays. Additionally, it allows people to recognise their contribution to the strategy implementation endeavour. One of the managers said: 'Integration between the different systems will ensure having the information as live data'.

Integration between the core systems and the support functions systems produces many benefits. For example, if the core systems are integrated with the human resources system, then the employees' performance can be linked with achieving the strategic objectives. In this way, the organisation **links all activities to the strategy**.

Ensure **universal systems** from well-known international vendors, rather than local ones. This ensures that the automated systems are standard and can be integrated easily through standard interfaces with other internal and external systems.

Managers must begin automating the core business and then later automate the support functions. Core business automation is the **priority** as other systems can be added at later stages.

A significant function managers must establish is the **enterprise architecture**. This function

is responsible for integrating and unifying all the systems and recommending the correct organisation architecture. Unifying all the systems in the organisation will decrease the complexity of heterogeneous systems. However, doing this has drawbacks, such as submitting to the monopoly of one vendor. From a different angle, if the organisation has a large number of systems, then it can introduce new systems that play the role of integration as a layer above these systems. Moreover, they can introduce a separate function within an organisation and a dedicated team to handle the integration between the different systems.

The type of organisation, its business relation to IT and its level of **IT maturity** play significant roles in determining the suitable IT that satisfies the organisation's automation requirements.

Ensure **benchmarks** for the organisational processes follow **international standards** that are set by specialised international bodies, such as the International Organisation for Standardisation (ISO) and the Project Management Institute (PMI). This may facilitate the implementation of the new systems and the integration with others outside the organisation.
To ensure a more successful implementation of automation, it is highly recommended to execute the **automation in phases.** This allows time to assess the performance and the customers' satisfaction with each phase as it is completed and to provide an input for the next phase.

The principal competitive advantage of the business is to provide better services to its clients. Organisations have various types of services to provide to different clients (business, government, citizens, employees). Therefore, there must be an **automated end-to-end** service and integration with all parties. Additionally, these automated services **should use all available channels**, such as the Internet, mobile applications and kiosks.

IT is changing at a rapid rate; therefore, managers must keep their systems **up-to-date with the latest technologies**. This should be considered when planning long-term automation projects. Managers should use the available tools and techniques to measure the value of adopting new technology (i.e. expected monetary problems) and the risks associated with it.

There are specific **criteria** that are fundamental to be considered when **choosing an IT vendor**. First, the vendor should have a local presence to ensure smooth implementation of activities and support the operations stage. Second, the vendor should be financially stable. Third, the vendor should have a highly skilled implementation team. Lastly, the vendor should have a well-established historical record of implementing similar projects.

4.3.4 Advice

The resulting actions and insights from the qualitative part of this research can help in suggesting a roadmap for managers and practitioners in the strategy implementation field. Following this roadmap may generate a change in an organisation that must be managed by a proper mechanism to ensure the correct environment for the strategy implementation activities. The third part of the interviews covered this aspect; it solicited advice from the participants on this IT implementation and on how to manage the changes. The major points of advice are as follows.

Engage the organisation's employees in the early stages of implementing the recommended actions. Let staff participate in the decision-making process. Doing this will facilitate the change and lower resistance to it. Employees are used to doing their work in a certain way and may be afraid the automation will eliminate their jobs or change their work. Therefore, they should understand the real value of automation and how it opens up new opportunities for them and their organisation's business.

Establish a common language between all employees that stems from a unified understanding of the organisation's strategy and objectives. This may be improved by conducting awareness sessions about the strategy and automation initiatives. The organisation can use several channels and tools for awareness and disseminate the information across the organisation, such as through emails, social media updates and advertisements.

Educate and train the staff on the new automated systems and how to realise the benefits to their business. Have a knowledge management practice to change the culture of the organisation and conduct a set of workshops to disseminate the objectives and the benefits of automation.

Obtain support from management leadership (i.e. send related messages to employees, facilitate financial requests, provide the required related decisions) for the automation and strategy implementation activities. This may provide a push for the change and ease the adaptation of it. Moreover, it is recommended that managers educate their employees on the value of this change and how it may enhance the strategy implementation. This support is highly necessary as automation may generate a change in an organisation's structure, roles and processes and even in the mentality of doing work. Therefore, decision makers should send messages that support the automation exercise.

It is recommended to follow a well-known and tested change management framework to

correctly manage the change. Managers must identify who may be impacted by the change and perform an analysis for the change stakeholders to determine their interests and power and how to communicate with them. Managers must set guidelines on how to manage the change and how to motivate the employees to accept the changes.

The reaction to change, automation and strategy implementation activities depend on the duration of change. Longer change processes require more attention and a detailed plan to manage them.

Establish a change management unit or team to manage the change and to begin initiatives to help apply the changes within the organisation.

4.4 Integrated Discussion

4.4.1 Quotes

Below is a list of quotes that were collected during the interviews that support the ideas that have been presented in this chapter:

One of the managers who works in the education sector said: ‘We are working in a world that is fully automated’. ‘Automating the strategy is a very important factor to enable successfully implementing the strategy’. ‘Automation is the tool to enable achieving the strategy as it was planned’. Here, the manager agrees with the researcher on the importance of automation in successful strategy implementation.

One of the managers who works in the postal industry mentioned: ‘It is better and more important to have a well-established strategy implementation than strategic planning’. This manager aligns with the current direction in the literature to place more focus on strategy implementation as it is more important for their organisations.

A participant in the qualitative stage mentioned: ‘Support functions are important but come second. If I have the budget, I start with core systems automation first’. This participant indicates the importance of automating the core systems, which are related directly to business, and the importance of providing the required budgets to automate them.

Another interviewee said: ‘Change should come from above [the higher management]. If higher management are not convinced, the change may not succeed regardless of what you are doing’. At this point, the interviewee clarifies by providing the appropriate engagement from leadership to support the change that will be generated by the automation initiatives within the organisations.

A manager who participated in the interviews stated: ‘The researcher think technology is very important in supporting the strategy implementation because the researcher experienced many organisations who developed strategies, but these strategies sit in the drawers, or they don't use them, so having these strategies automated really will help me in implementing and tracking these strategies’. This manager talked about the importance of automating the strategy plan itself to ensure better tracking of the implementation activities.

One of the managers who participated in the interviewing process mentioned: ‘If you do not have a structure for the organisation, you will not have successful automation’. Having an organisational structure is important for the automation activities as it will help define the roles and responsibilities in relation to automation.

Another manager mentioned: ‘Injecting any new technology will help in execution’. This manager addresses the overall execution of the organisation and the importance of using technology to improve it.

A manager who has had a lengthy experience in change management mentioned: ‘The biggest challenge for automation is the acceptance by employees to the change that is happening within the organisation’. Managing the change resistance that occurs by implementing the automation is crucial, and employees should accept the change, which will help them in doing their job more efficiently.

4.4.2 Integrated View

This research provides managers with actionable knowledge on the IT factors with greater impact that should be followed to improve business and corporate strategy implementation and which may drive the organisation forward towards better performance. Additionally, the research provides the researcher, as a consultant, with more insights into the factors that affect strategy implementation. Subsequently, the researcher can use this gained knowledge to enhance his consulting offerings and help his clients in performing their jobs and implementing their strategies. Although most of the actions provided in the previous sections can be found in the literature, this research provides them in a consolidated way and with evidence from practice within Saudi public organisations and recommended by the managers in practice.

Managers may obtain benefits from the results of the research. The recommendations from this study provide managers with necessary actions they must follow to support the efforts in improving the execution of their business strategies.

5 Conclusions

In the first section of this concluding chapter, the researcher presents the complete framework that consolidates the findings from the two stages: the quantitative and the qualitative research. In the second section, the researcher presents the practical implications of the study and how to increase the likelihood of having a successful strategy implementation by capitalising on IT automation factors that have greater impacts on strategy implementation activities. In the third section, the researcher discusses the limitations of the research. In the final section, the researcher presents possibilities for further research.

This research has provided the researcher with a tremendous number of insights into his practice. It has helped him organise his thoughts and has allowed him to view his practice and experiences differently. When one only works in the academic world, one misses the beauty of the practical world, and vice versa. When one conducts an action research project, however, they build the bridge between the two worlds and realise the power of both. Therefore, linking theory with practice is a way to establish the roots of theory in reality. On the other hand, as one engages in action research, they participate in humans' betterment and in improving the lives of others. Moreover, one realises the values they believe in, and they appear clearly in the research (McNiff, 2014).

This research participated in answering the research question: 'How can we improve strategy implementation in Saudi public sector organisations using information technology (IT)?'. The actions presented in the previous chapter will provide ways to improve strategy implementation practice in Saudi public organisations by using the IT automation factors.

Moreover, the research participated in answering other questions that were raised at the beginning of this study. As seen in the literature review and the quantitative part of the study, strategy implementation effectiveness is vital for better organisational performance for Saudi public organisations. This answered the question: 'How can strategy implementation improve organisational performance?'

For the question 'What are the drivers that impact strategy implementation effectiveness in Saudi public sector organisations?', several drivers were explored that have an impact on strategy implementation, including, for example, having a coordinated body for strategy implementation, such as a PMO or an SEO (Kaplan and Norton, 2005) and support from IT for strategy implementation activities (Asato et al., 2011, Zubovic et al., 2014, Yeh et al., 2012, McLaren et al., 2011).

For the question addressing ‘What are the IT factors that have greater impact on strategy implementation effectiveness in Saudi public sector organisations?’, several factors have been exlored, including, for example, the automated system(s) for the core business and the automated system(s) for support functions, such as finance and human resources (Ardakan et al., 2010).

Moreover, the research provided and formulated an action plan that can be used by managers in public organisations in Saudi Arabia to increase the benefits of using IT automation in ensuring better organisational performance. Additionally, the research provided advice for managers in managing the change that is expected to occur after applying the action plan.

Overall, the research achieved its objectives by exploring the different drivers that impact strategy implementation through the literature review that brought about a better understanding of the various dynamics of strategy implementation: models, importance, obstacles, challenges and others, as well as the potential role of IT in this. Different drivers were identified that impact strategy implementation in public sector organisations in Saudi Arabia. IT factor(s) that have greater impacts on strategic implementation activities were identified and ranked. Different aspects of these IT factors and the practices followed by managers in this regard were explored. Moreover, lastly, an action plan was formed that can be adopted by managers to help them enhance strategy implementation within their organisations using IT

In the following section, the researcher summarises the actions presented in the previous chapter in a complete framework that briefly tells the research story.

5.1 The Complete Framework

Figure 5-1 presents the complete framework and provides a holistic view of the research and its findings, drawing together all the aspects of the research.

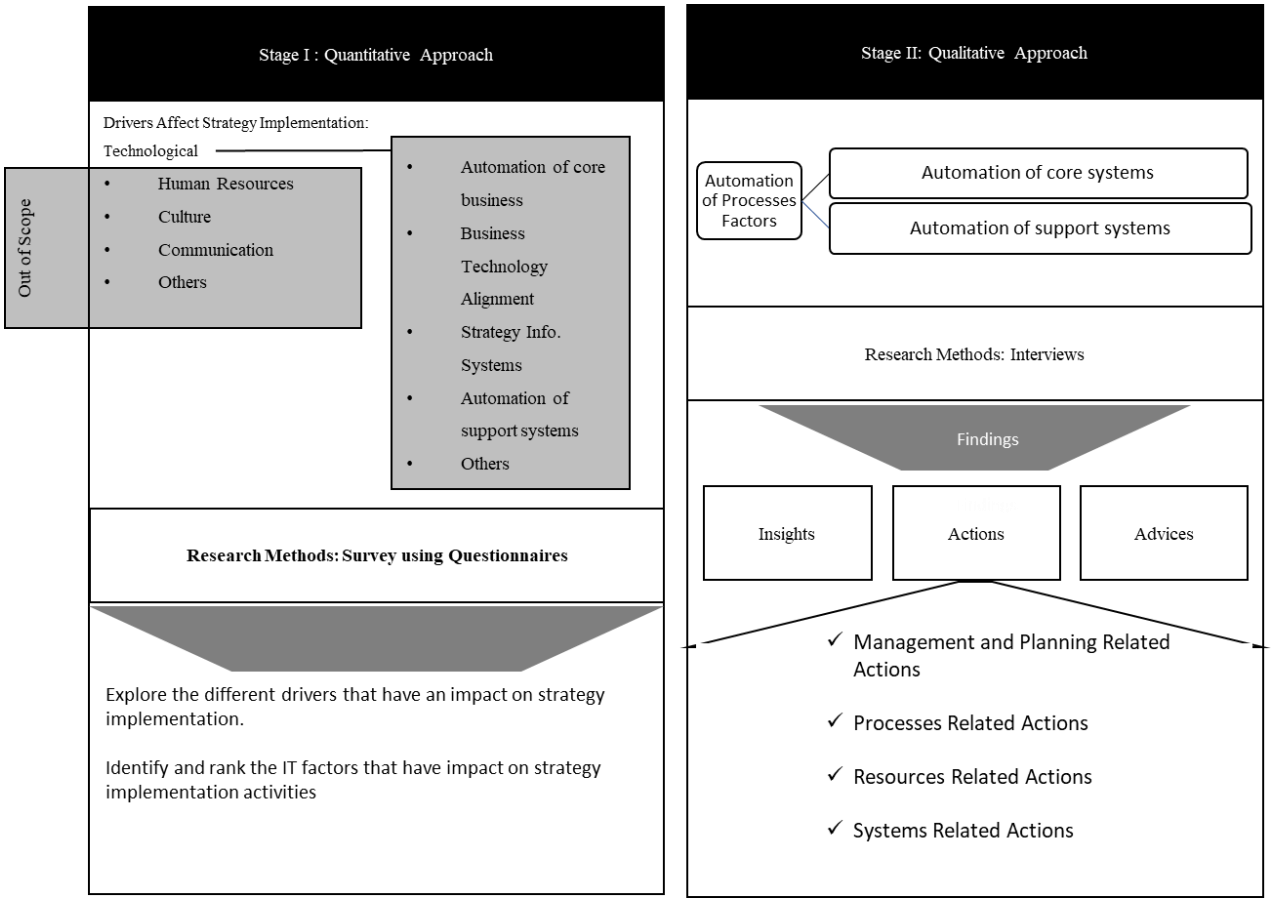

Figure 5-1 Complete Research Framework

The ultimate value of this research is to devise an action plan that can be adopted by managers in their strategy implementation activities. After the above analysis, the researcher presents the following actions that are recommended by practitioners in the field of strategic management in the public sector in Saudi Arabia. These actions are essential for enlarging the benefits of automation factors in improving the strategy implementation within Saudi public organisations. As depicted in Figure 5-1, the actions are grouped into four categories: management- and planning-related actions, process-related actions, resources-related actions and systems-related actions.

Management- and Planning-Related Actions

- Have a strategy
- Obtain support and sponsorship from the organisation's leadership
- Define core business
- Analyse stakeholders
- Prioritise projects
- Use best practices and standards

- Establish a technical committee
- Engage technology people
- Align with IT strategy
- Prepare a communication plan
- Seek others' experiences
- Secure funds
- Implement pre-automation projects
- Manage dependencies
- Define governance
- Have a project plan and KPIs

Process-Related Actions

- Identify the processes and supply chain cycles
- Re-engineer processes
- Follow the standardised processes
- Integrate with others

Resources-Related Actions

- Establish awareness about the automation
- Train the human resources
- Educate the organisation's management

Systems-Related Actions

- Integrate the support functions' systems
- Link all organisational activities to the strategy
- Ensure universal systems are in place
- Prioritise core business systems
- Establish the enterprise architecture function
- Identify the level of technological maturity
- Ensure benchmarks with international standards
- Execute the automation in phases
- Ensure automated end-to-end service is in place
- Keep implemented systems up-to-date with the latest technologies
- Choose the correct technology vendor

This specific list of actions that can be followed by managers to improve the strategy implementation within organisations, satisfying the ultimate objective of this research. The previous chapter provides more details for each action. Saudi Arabia is a rentier state that is suffering from difficulties in implementation of strategy in the public sector, and although the government is spending much money on it, this list is vital for improving the implementation of strategy in the public sector and enhancing budget spending.

5.2 Study Implications

This research has several implications for the middle management layer within public sector organisations in Saudi Arabia. Strategy implementation is a process that realises the strategy to achieve organisational objectives (MacLennan, 2010). Strategy implementation is a vital component of the overall strategic management system and of ensuring beneficial outcomes from the strategy; an organisation must have a successful implementation. The two main components of the strategic management system are strategic planning, which is the process of formulating the strategy, and strategy implementation, which is the process of successfully implementing the formulated strategy. Strategy implementation has a substantial potential impact on and is considered a determinant of overall organisational performance. Additionally, the comprehensiveness of strategy implementation has a positive impact on strategic planning activities (Elbanna and Fadol, 2016). Managers in Saudi public organisations must realise the importance of strategy implementation in improving the overall performance of their organisations. Such an implication is important for Saudi public sector leadership when taking into consideration the current changes occurring in this country, the region and the world.

Another implication of the study related to the literature review indicated more research is necessary to diagnose the problem of strategy implementation, which has not received sufficient attention from researchers in the field. However, the failure of strategy implementation is now well known, and much research effort is seeking possible solutions or at least ways to mitigate the effects of strategy implementation failure. Organisations are facing several challenges and barriers in their efforts to implement their strategies, such as environmental pressures (i.e. consumer power, regulations), investor pressures, misaligned organisational structures and inadequate information sharing in all levels of the organisation (MacLennan, 2010).

A survey conducted in March 2014 through an online tool by Strategy& (formerly Booz & Company) of more than 500 executives in various geographical locations, industries and levels

of seniority identified an apparent gap between strategy development and strategy implementation. One key finding of the survey is that 55 per cent of the respondents indicated that their organisation is not focusing on the implementation of strategy. In addition, the survey results highlighted that 42 per cent of respondents are concerned about at least one barrier to strategy implementation, 54 per cent have some concern and the remaining 4 per cent have no concern, which means that approximately 96 per cent of the respondents have concerns about at least one barrier to their organisation's success, either from the strategic planning or the implementation perspective (strategy& and PWC, 2014).

Implementation of the strategy is an essential stage of the strategic management lifecycle. It is crucial for the success of the organisation in its efforts to achieve its goals. Many factors affect strategy implementation, such as customer needs, employees' behaviour and management reactions. The American Management Association/Human Resource Institute (AMA/HRI) survey asked respondents to provide their feedback on different drivers that affect strategy execution on a 5-point scale. The results covered the period of the survey (2006–2016) and demonstrated that several drivers affect the implementation of strategy. The five most important drivers identified were customer needs and demands, workforce capability, technological changes, internal creativity or innovativeness and organisational resilience. However, the survey also indicated that within 10 years, the drivers would change, and the top five will be customer needs and demands, technological changes, workforce capability, internal creativity or innovativeness and a shared sense of commitment (AMA, 2007). Therefore, as technology evolves, the IT driver will become a more important ingredient in the implementation of organisations' strategies. This indicates the importance of IT as a driver for Saudi public organisations to improve their strategy implementation effectiveness, which will lead to improvement in the overall performance of their organisations.

Furthermore, inadequate information systems and technology usage will lead to improper strategy implementation, indicating the importance of injecting IT into all aspects of strategy implementation (Shah, 2005). IT increases the capability of an organisation in performing and managing its strategy implementation activities. A lack of support from IT inhibits an organisation from successfully implementing its strategy (Pillania and Kazmi, 2008). This research explored the IT factor(s) that have greater impacts on strategy implementation, along with recommendations and actions necessary for improving strategy implementation and enhancing organisational performance.

This research was conducted in Saudi Arabia, which is considered a rentier state that depends on renting its natural resources to feed its national income and budget. Public sector organisations have the most substantial portion of the government budget spending. Saudi Arabia has been facing issues in implementing their established strategies over the last 20–30 years; this has resulted in an economy of which 90 per cent depends on oil renting (Albassam, 2015). As a result, this research may help in efforts to improve strategy implementation activities in this country and the practice in general by enjoying the benefits of IT capabilities.

The researcher gained a substantial amount of knowledge that helped him shape his consulting works in bringing about a better understanding of his client's strategy implementation obstacles. Moreover, he now has a better understanding of the drivers that impact strategy implementation and the different IT factors that participate in improving the strategy implementation activities within public organisations in Saudi Arabia.

From the quantitative stage of this research, it can be noted that having a coordinated body for strategy implementation activities, such as a PMO or an SEO, is ranked number one as a driver for strategy implementation. Policymakers in Saudi Arabia should consider this when establishing governance models within the government, along with the findings of this research.

The researcher's objective in conducting this study is to explore the role that IT plays in transforming businesses and helping Saudi public organisations to implement their strategies. The researcher works in the consulting field, mainly in the technology industry, and therefore, this study helped him explore the importance and the impact of IT in implementing strategies. Moreover, using the results of the study, the researcher can help his consulting firm prioritise its investments and products concerning the IT factors with greater impacts on strategy implementation. Additionally, this study presents various dimensions organisations must consider when injecting IT into the strategy implementation process.

5.3 Study Limitations

In this section, the researcher addresses the limitations of this study that exist due to various reasons caused by the context, research methods and findings. The following are the main categories of these limitations:

- Exploratory nature of the study
- Population, sample and unit of analysis
- Quantitative survey

- Qualitative interviews
- Targeted middle management
- Targeted Saudi public organisations
- Generalising the research findings

5.3.1 Exploratory Nature of the Study

The researcher designed the research to revolve around exploring the drivers that have an impact on strategy implementation activities. Then, the research decomposed the IT drivers to identify and rank the IT factors and devised actions based on the IT factors with greater impacts. The researcher did not develop hypotheses in his study given its exploratory nature, which raises a key limitation of this study that must be addressed by further research. This research must define the different relations between the variables addressed in this study to develop related hypotheses. These hypotheses must be statistically proved or disproved.

5.3.2 Population, Sample and Unit of Analysis Limitations

The sample of this study is extracted from its population, which is the managers of public organisation in Saudi Arabia. The researcher attempted to use the appropriate sample that represents the public sector and to ensure it has the correct mixture of organisations from different industries within the public sector. However, the sample did not include specific industries within the public sector, which may impact the findings of this research due to the nature of these industries. One example of these industries is the defence industry, which consists of a good portion of Saudi public organisations. The researcher attempted to contact several managers within this sector, but unfortunately, they refused to participate due to the high-security controls within this industry in Saudi Arabia. Moreover, the researcher did not locate statistics that define the management layer within the public sector, even though the size of the public sector is defined by 1.2 million (General_Authority_of_Statistics, 2017). Moreover, the unit of analysis adopted in this research is the organisation level as a whole, which adds another aspect of limitation.

5.3.3 Quantitative Survey Limitations

The first stage of this study was quantitative, and a questionnaire was circulated to the intended participants who represent the middle management layer in Saudi public organisations. The researcher found that the response percentage increased significantly after translating the questionnaire into Arabic, which is the first language of the Saudi people. This indicates that

respondents have a better understanding of the questions in their native language. Using the *SurveyMonkey* tool helped create the questionnaire in two languages to reach the targeted sample, which helped overcome the limitation. Moreover, although the questionnaire was translated by the researcher and reviewed by the participants in the study pilot, the questionnaire may lose some of its questions' intended meaning due to the translation.

5.3.4 Qualitative Interview Limitations

The researcher conducted the interviews with a set of candidates from Saudi public organisations middle management using a video conferencing calling tool (*Skype*). This tool provided several facilities for the study, such as recording for the interviews, which made it more comfortable for the interviewer, allowing the interview to occur at a convenient time and place and allowing freedom for the participant in the discussion.

However, conducting interviews via video calls introduced limitations that resulted from a lack of face-to-face social interaction between the interviewer and the interviewee, reducing real social interactions. This may have resulted in losing a set of observations that could be recorded by the interviewer, which may have enriched the research findings.

5.3.5 Targeted Middle Management

The participants of this research are managers who represent the middle management layer in Saudi public organisations. Although the managers interact most with strategy implementation activities, the other levels also have interactions with strategy implementation activities and have a different impact on them. Therefore, a limitation arises from excluding other levels of the organisations, which may have influenced the research findings and could introduce different actions that improve the strategy implementation practice.

5.3.6 Targeted Saudi Public Organisations

The research is limited to the public sector in Saudi Arabia and does not target the private sector or other countries. As discussed in the previous chapters, the Saudi public sector has several dynamics due to the unique characteristics of this country and its economy that are caused by its culture, fortune, religious status and more. This adds an additional limitation to the research and restricts the possibility of generalising its findings to all sectors and countries. However, the public sector is driving the market in Saudi Arabia as it is a rentier state, and there is massive spending from the government in this sector. Therefore, the strategy implementation is more established and institutionalised in the public sector.

5.3.7 Generalising the Research Findings Limitations

This study was conducted in one country, Saudi Arabia, which limits the generalisation of its findings to other countries with different characteristics. Countries that are not rentier states may have different factors. However, the researcher believes the results can be generalised nevertheless, particularly to other Gulf countries that are rentier states and share similarities with Saudi Arabia, such as in culture, history, quality of life, traditions, demographics and market structures. Additionally, context is an essential ingredient to the research and in drawing its objectives. Shrivastava (1986) addresses this, arguing that seeking generalised research findings reduces the importance of the research context that provides the validity of the research findings. Furthermore, the generalisation of the findings may be applied to the organisations that participated in the research and cannot be fully applied to other organisations that did not participate in the study. The public sector in Saudi Arabia is large, with diverse types of organisations.

5.3.8 Limitations Impact

This research does not provide perfect results that can be used everywhere and in all contexts. The researcher's objective for this research was to determine the best actions required for today. This means that this research is not the end, and he does not want it to be (McNiff, 2014).

The results of this study are based on responses received from middle managers through the use of quantitative and qualitative tools. These responses are subjective and stem from the experience of the middle managers and their interactions with the various components of their organisations. However, the responses are appropriate ways to measure strategy implementation effectiveness. As a result, the researcher strongly recommends that the findings be adopted in strategy implementation in public sector organisations in Saudi Arabia and that the findings should be tested in different contexts.

5.4 Further Research

The suggestion for further research stems from the limitations of this research and its findings. This study explores different strategy implementation and IT factors that impact strategy implementation effectiveness and organisational performance and defines actions that help enlarge the benefits of using the IT factors that have greater impacts on strategy implementation activities. With no hypothesis in this research, additional research is required to devise the assorted relations between the variables addressed in this research.

Moreover, the second stage (qualitative) of this study only focused on the IT automation factors due to the study objectives and the time limitations of the study. Therefore, the researcher recommends analysing other IT factors in future research, such as IT training for senior management. Additionally, other strategy implementation drivers should be explored to define their impact on strategy implementation activities within organisations.

Furthermore, the study introduced a complete framework that consolidates all research findings and recommendations. This framework should be tested in a different context, such as the private sector, or in different countries to increase the degree of validity. Moreover, applying this framework in other contexts may result in discovering other factors that impact strategy implementation activities and may lead to other recommendations to capitalise on those factors.

Another aspect that opens the door to further research is the tools used in conducting this research and the shortcomings of those tools, such as translation shortcomings, the medium of conducting the interviews and the tools used for conducting the survey. Moreover, a larger sample from the research population (middle management of Saudi public organisations) is recommended, as well as enlarging the population itself by including other organisational staff who have been excluded from this research.

As a result, this research has several limitations that were raised from its exploratory nature as the research explored the strategy implementation practice within the public sector in Saudi Arabia, which raised several questions that must be answered in further research.

6 References

AALTONEN, P. 2007. *Adoption of strategic goals: Exploring the success of strategy implementation through organizational activities.* Doctor of Science in Technology Dissertation, Helsinki University of Technology.

AFONINA, A. & CHALUPSKÝ, V. 2012. The current strategic management tools and techniques: The evidence from Czech Republic. *Economics and Management,* 17**,** 1535–1544.

AL-ABOUD, F. N. 2011. Strategic information systems planning: A brief review. *International Journal of Computer Science and Network Security,* 11**,** 179–183.

AL-GAMDI, S. 2006. Obstacles to Successful Implementation of Strategic Decision: The Saudi case. *King Fahed University of Petroleum & Minerals for the Development, the SABIC grant*.

AL-GHAMDI, S. M., ROY, M. H. & AHMED, Z. U. 2007. How employees learn about corporate strategy: An empirical analysis of a Saudi manufacturing company. *Cross Cultural Management: An International Journal,* 14**,** 273–285.

AL-SOMALI, S. A., GHOLAMI, R. & CLEGG, B. J. T. 2009. An investigation into the acceptance of online banking in Saudi Arabia. 29**,** 130–141.

AL KATHEERI, B. S. 2016. Determinants of organizational performance ln the semi-government sector of Abu Dhabi: Strategic management perspective.

ALBASSAM, B. A. 2015. Economic diversification in Saudi Arabia: Myth or reality? *Resources Policy,* 44**,** 112–117.

ALDEHAYYAT, J. S. & ANCHOR, J. R. J. S. C. B. I. E. F. 2010. Strategic planning implementation and creation of value in the firm. 19**,** 163–176.

ALEXANDER, L. D. 1989. Successfully implementing strategic decisions. *Readings in strategic management.* Springer.

ALQUBAISI, H. & KHALFAN, F. 2017. Strategic plan implementation in the UAE public sector organizations: Antecedents and Outcomes.

AMA, A. M. A. 2007. The keys to strategy execution.

AMJAD, M. 2013. *Towards competitive theorizing of strategy implementation process– Empirical evidence from applying the RBV lens on implementation process.* Doctor of Philosophy PhD, University of Central Lancashire.

ANDREWS, R., BEYNON, M. J. & GENC, E. 2017. Strategy implementation style and public service effectiveness, efficiency, and equity. *Administrative Sciences (2076–3387),* 7**,** 1–19.

ANDREWS, R., BOYNE, G. A., LAW, J. & WALKER, R. M. 2009. Strategy formulation, strategy content and performance: An empirical analysis. *Public Management Review,* 11**,** 1–22.

ANDREWS, R., BOYNE, G. A., LAW, J. & WALKER, R. M. 2011. Strategy implementation and public service performance. *Administration & Society,* 43**,** 643–671.

ARAL, S. & WEILL, P. 2007. IT assets, organizational capabilities, and firm performance: How resource allocations and organizational differences explain performance variation. *Organization Science,* 18**,** 763–780.

ARDAKAN, M. A., BARZEGAR, Z. & VVAHDAT, Z. Using balance score card in aligning strategy implementation according to information technology development in organization. European Conference on Information Management and Evaluation, 2010. Academic Conferences International Limited, 1.

ARVIDSSON, V., HOLMSTRÖM, J. & LYYTINEN, K. 2014. Information systems use as strategy practice: A multi-dimensional view of strategic information system implementation and use. *The Journal of Strategic Information Systems,* 23**,** 45–61.

ASATO, R., SPINOLA, M. M., COSTA, I. & SILVA, W. H. D. F. 2011. Alignment between the business strategy and the software processes improvement: A roadmap for the implementation. *Production,* 21**,** 314–328.

AUPING, W. L., PRUYT, E., DE JONG, S. & KWAKKEL, J. H. 2016. The geopolitical impact of the shale revolution: Exploring consequences on energy prices and rentier states. *Energy Policy,* 98**,** 390–399.

BANKER, R. D., HU, N., PAVLOU, P. A. & LUFTMAN, J. 2011. CIO reporting structure, strategic positioning, and firm performance. *MIS quarterly,* 35**,** 487–504.

BELL, J. 2014. *Doing your research project: A guide for first-time researchers,* McGraw-Hill Education (UK).

BERGERON, F., RAYMOND, L. & RIVARD, S. 2004. Ideal patterns of strategic alignment and business performance. *Information & Management,* 41**,** 1003–1020.

BHARADWAJ, A., EL SAWY, O. A., PAVLOU, P. A. & VENKATRAMAN, N. 2013. Digital business strategy: Toward a next generation of insights. *Mis Quarterly,* 37**,** 471–482.

BRANNICK, T. & COGHLAN, D. 2007. In defense of being "native": The case for insider academic research. *Organizational Research Methods,* 10**,** 59–74.

BREENE, R. T. S., NUNES, P. F., SHILL, W. E. & TIMOTHY, S. 2007. The chief strategy officer. *Harvard Business Review,* 85**,** 84.

BRENES, E. R., MENA, M. & MOLINA, G. E. 2008. Key success factors for strategy implementation in Latin America. *Journal of Business Research,* 61**,** 590–598.

BRYSON, J. M. 1988. A strategic planning process for public and non-profit organizations. *Long Range Planning,* 21**,** 73–81.

BRYSON, J. M. 2010. The future of public and nonprofit strategic planning in the United States. *Public Administration Review,* 70**,** s255–s267.

BRYSON, J. M. 2018. *Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement,* John Wiley & Sons.

BRYSON, J. M., BERRY, F. S. & YANG, K. 2010. The state of public strategic management research: A selective literature review and set of future directions. *The American Review of Public Administration*.

BRYSON, J. M., CROSBY, B. C. & BRYSON, J. K. 2009. Understanding strategic planning and the formulation and implementation of strategic plans as a way of knowing: The contributions of actor-network theory. *International Public Management Journal,* 12**,** 172–207.

BURGESS, T., ONG, T. & SHAW, N. 2007. Traditional or contemporary? The prevalence of performance measurement system types. *International Journal of Productivity and Performance Management,* 56**,** 583–602.

CARR, N. G. 2003. IT doesn't matter. *Educause Review,* 38**,** 24–38.

ČATER, T. & PUČKO, D. 2010. Factors of effective strategy implementation: Empirical evidence from Slovenian business practice. *Journal for East European Management Studies***,** 207–236.

CHESBROUGH, H. W. & APPLEYARD, M. M. 2007. Open innovation and strategy.

CHUNG, Y., HSU, Y., TSAI, S., HUANG, H. & TSAI, C. 2012. The correlation between business strategy, information technology, organisational culture, implementation of CRM, and business performance in a high-tech industry. *South African Journal of Industrial Engineering,* 23**,** 1–15.

CRESWELL, J. W. & PLANO CLARK, V. L. 2011. *Designing and conducting mixed methods research,* Los Angeles : SAGE Publications, 2011. 2nd ed.

CRITTENDEN, V. L. & CRITTENDEN, W. F. 2008. Building a capable organization: The eight levers of strategy implementation. *Business Horizons,* 51**,** 301–309.

DEDRICK, J., GURBAXANI, V. & KRAEMER, K. L. 2003. Information technology and economic performance: A critical review of the empirical evidence. *ACM Computing Surveys (CSUR),* 35**,** 1–28.

DIAZ-RIOSECO, D. 2016. Blessing and curse oil and subnational politics in the Argentine provinces. *Comparative Political Studies***,** 0010414016666833.

DIMITRIOS, N. K., SAKAS, D. P. & VLACHOS, D. 2013. The role of information systems in creating strategic leadership model. *Procedia-Social and Behavioral Sciences,* 73**,** 285–293.

DONSELAAR, R. 2012. *The organisational drivers and barriers of strategy implementation within a non-profit organisation: A case study at the Netherlands Red Cross.* Master of Science Thesis, University of Twente.

DOUGLAS, S. P. & CRAIG, C. S. 2007. Collaborative and iterative translation: An alternative approach to back translation. *Journal of International Marketing,* 15**,** 30–43.

DRNEVICH, P. L. & CROSON, D. C. 2013. Information technology and business-level strategy: Toward an integrated theoretical perspective. *Mis Quarterly,* 37**,** 483–509.

DRNEVICH, P. L. & MCINTYRE, D. P. 2010. Information technology and strategy: Two camps, four perspectives, one elusive goal. *International Journal of Strategic Information Technology and Applications (IJSITA),* 1**,** 1–18.

EASTERBY-SMITH, M., THORPE, R. & JACKSON, P. R. 2012. *Management research,* Sage.

ELBANNA, S. 2006. Strategic decision-making: Process perspectives. *International Journal of Management Reviews,* 8**,** 1–20.

ELBANNA, S. 2010. Strategic planning in the United Arab Emirates. *International Journal of Commerce and Management,* 20**,** 26–40.

ELBANNA, S. 2012. Slack, planning and organizational performance: Evidence from the Arab Middle East. *European Management Review,* 9**,** 99–115.

ELBANNA, S. 2013. Processes and impacts of strategic management: Evidence from the public sector in the United Arab Emirates. *International Journal of Public Administration,* 36**,** 426–439.

ELBANNA, S., ANDREWS, R. & POLLANEN, R. 2016. Strategic planning and implementation success in public service organizations: Evidence from Canada. *Public Management Review,* 18**,** 1017–1042.

ELBANNA, S., EID, R. & KAMEL, H. 2015. Measuring hotel performance using the balanced scorecard: A theoretical construct development and its empirical validation. *International Journal of Hospitality Management,* 51**,** 105–114.

ELBANNA, S. & ELSHARNOUBY, T. H. 2018. Revisiting the relationship between formal planning process and planning effectiveness: Do organizational capabilities and decision-making style matter? *International Journal of Contemporary Hospitality Management,* 30**,** 1016–1034.

ELBANNA, S. & FADOL, Y. 2016. An analysis of the comprehensive implementation of strategic plans in emerging economies: The United Arab Emirates as a case study. *European Management Review*.

FATTOUH, B. & SEN, A. 2016. Saudi Arabia's vision 2030, oil policy and the evolution of the energy sector. *Oxford Institute for Energy Studies, Oxford Energy Comment, July. https://www. oxfordenergy. org/wpcms/wp-content/uploads/2016/07/Saudi-Arabias-Vision-2030-Oil-Policy-and-the-Evolutionof-the-Energy-Sector. pdf*.

FERLIE, E. & ONGARO, E. 2015. *Strategic management in public services organizations: Concepts, schools and contemporary issues*, Routledge.

FIELD, A. 2013. *Discovering statistics using IBM SPSS statistics*, Sage.

FISHMAN, F. 2009. Strategy execution for enduring performance. *Baseline***,** 40–40 1p.

FOREMAN, J. & ARGENTI, P. A. 2005. How corporate communication influences strategy implementation, reputation and the corporate brand: An exploratory qualitative study. *Corporate Reputation Review,* 8**,** 245–264.

GADIESH, O. & GILBERT, J. L. 2001. Transforming corner-office strategy into frontline action. *Harvard Business Review,* 79.

GAZETTE, S. 2016. Full text of Saudi Arabia's vision 2030. *Saudi Gazette,* 26.

GENERAL_AUTHORITY_OF_STATISTICS 2017. Statistical yearbook of 2017 - Saudi Arabia.

GIBBONS, M., LIMOGES, C., NOWOTNY, H., SCHWARTZMAN, S., SCOTT, P. & TROW, M. 1994. *The new production of knowledge: The dynamics of science and research in contemporary societies*, Sage.

GREENWOOD, D. J. & LEVIN, M. 2006. *Introduction to action research: Social research for social change*, Sage publications.

GUBA, E. G. & LINCOLN, Y. S. 1994. Competing paradigms in qualitative research. *Handbook of qualitative research,* 2**,** 105.

GUIDE, P. A guide to the project management body of knowledge. Project Management Institute, 2004.

HARBI, S. A., THURSFIELD, D. & BRIGHT, D. J. T. I. J. O. H. R. M. 2017. Culture, Wasta and perceptions of performance appraisal in Saudi Arabia. 28**,** 2792–2810.

HEIDE, M., GRØNHAUG, K. & JOHANNESSEN, S. 2002. Exploring barriers to the successful implementation of a formulated strategy. *Scandinavian Journal of Management,* 18**,** 217–231.

HIGGINS, J. M. 2005. The eight 's's of successful strategy execution. *Journal of Change Management,* 5**,** 3–13.

HO, J. L., WU, A. & WU, S. Y. 2014. Performance measures, consensus on strategy implementation, and performance: Evidence from the operational-level of organizations. *Accounting, Organizations and Society,* 39**,** 38–58.

HREBINIAK, L. 2008. Making strategy work: Overcoming the obstacles to effective execution. *Ivey Business Journal,* 72**,** 1–6.

HREBINIAK, L. G. 2006. Obstacles to effective strategy implementation. *Organizational Dynamics,* 35**,** 12–31.

HREBINIAK, L. G. 2013. *Making strategy work: Leading effective execution and change,* FT Press.

IMMELT, J. R., GOVINDARAJAN, V. & TRIMBLE, C. 2009. How GE is disrupting itself. *Harvard Business Review,* 87**,** 56–65.

JALALI, S. H. 2012. Appraising the role of strategy implementation in export performance: A case from Middle East. *Editorial Note 201 Profile of Authors Included in this Number 202 Information for Contributors 204,* 5**,** 281.

KANE, G. C., PALMER, D., PHILLIPS, A. N., KIRON, D. & BUCKLEY, N. 2015. Strategy, not technology, drives digital transformation. *MIT Sloan Management Review*.

KAPLAN, R. S. & NORTON, D. P. 2005. *Creating the office of strategy management,* Division of Research, Harvard Business School.

KAPLAN, R. S. & NORTON, D. P. 2006. How to implement a new strategy without disrupting your organization. *Harvard Business Review,* 84**,** 100.

KARIMI, J., SOMERS, T. M. & BHATTACHERJEE, A. 2007. The role of information systems resources in ERP capability building and business process outcomes. *Journal of Management Information Systems,* 24**,** 221–260.

KATTUAH, S. E. 2013. *Workforce training for increased productivity in Saudi Arabia.* Victoria University.

KIM, W. C. & MAUBORGNE, R. 2015. *Blue ocean strategy, expanded edition: How to create uncontested market space and make the competition irrelevant*, Harvard Business Review Press.

KOHLI, R. & DEVARAJ, S. 2003. Measuring information technology payoff: A meta-analysis of structural variables in firm-level empirical research. *Information Systems Research,* 14**,** 127–145.

KOUFOPOULOS, D. N. & MOORGAN, N. A. 1994. Competitive pressures force Greek entrepreneurs to plan. *Long Range Planning,* 27**,** 112–124.

KRISHNAKUMAR, M. 2015. Strategy implementation: Strategic change model-A conceptual frame work. *Strategic Management Review,* 9**,** 77–86.

KVALE, S. & BRINKMANN, S. 2009. Interview: Learning the craft of qualitative research interviewing. *Det kvalitative forskningsintervju. Oslo: Gyldendal akademisk*.

LEE, R. P. & GREWAL, R. 2004. Strategic responses to new technologies and their impact on firm performance. *Journal of Marketing,* 68**,** 157–171.

LINDØE PEDERSEN, K. 2009. *Cracking the code of strategy execution.* MSc. in Economics and Business Administration Thesis, COPENHAGEN BUSINESS SCHOOL.

LU, Y. & RAMAMURTHY, K. 2011. Understanding the link between information technology capability and organizational agility: An empirical examination. *Mis Quarterly,* 35**,** 931–954.

MACLENNAN, A. 2010. *Strategy execution: Translating strategy into action in complex organizations*, Routledge.

MANKINS, M. C. & STEELE, R. 2014. Turning great strategy into great performance. *Analyst (Association of Water Technologies)***,** 17–27.

MARTINEZ-SIMARRO, D., DEVECE, C. & LLOPIS-ALBERT, C. 2015. How information systems strategy moderates the relationship between business strategy and performance. *Journal of Business Research,* 68**,** 1592–1594.

MARX, T. G. & BOWDEN, B. 2016. The impacts of business strategy on organizational structure. *Journal of Management History,* 22.

MATHRANI, S., MATHRANI, A. & VIEHLAND, D. 2013. Using enterprise systems to realize digital business strategies. *Journal of Enterprise Information Management,* 26**,** 363–386.

MCAFEE, A. 2002. The impact of enterprise information technology adoption on operational performance: An empirical investigation. *Production and Operations Management,* 11**,** 33–53.

MCLAREN, T. S., HEAD, M. M., YUAN, Y. & CHAN, Y. E. 2011. A multilevel model for measuring fit between a firm's competitive strategies and information systems capabilities. *Mis Quarterly,* 35**,** 909–929.

MCNIFF, J. 2014. *Writing and doing action research*, Sage.

MELVILLE, N., KRAEMER, K. & GURBAXANI, V. 2004. Review: Information technology and organizational performance: An integrative model of IT business value. *MIS Quarterly,* 28**,** 283–322.

MICHELI, P., MURA, M. & AGLIATI, M. 2011. Exploring the roles of performance measurement systems in strategy implementation. *International Journal of Operations & Production Management,* 31**,** 1115–1139.

MITCHELL, D. 2018. Strategic implementation: An illustration of theory/practice disconnect in public administration. *Public Administration Quarterly,* 42.

MITHAS, S., RAMASUBBU, N. & SAMBAMURTHY, V. 2011. How information management capability influences firm performance. *MIS quarterly,* 35**,** 237.

MITHAS, S., TAFTI, A. & MITCHELL, W. 2013. How a firm's competitive environment and digital strategic posture influence digital business strategy. *Mis Quarterly,* 37**,** 511–536.

MONTGOMERY, C. A. 2008. Putting leadership back into strategy. *Harvard Business Review,* 86**,** 54.

NIBLOCK, T. 2004. *Saudi Arabia: Power, legitimacy and survival*, Routledge.

NIVEN, P. R. 2008. *Balanced scorecard: Step-by-step for government and nonprofit agencies*, John Wiley & Sons.

NOBLE, C. H. 1999. The eclectic roots of strategy implementation research. *Journal of Business Research,* 45**,** 119–134.

NOËL, P. 2016. The new oil regime. *Survival,* 58**,** 71–82.

NOLAN, R. & MCFARLAN, F. W. 2005. Information technology and the board of directors. *Harvard Business Review,* 83**,** 96.

NUTT, P. C. 2011. Making decision-making research matter: Some issues and remedies. *Management Research Review,* 34**,** 5–16.

OH, W. & PINSONNEAULT, A. 2007. On the assessment of the strategic value of information technologies: Conceptual and analytical approaches. *MIS quarterly***,** 239–265.

OKUMUS, F. 2003. A framework to implement strategies in organizations. *Management Decision,* 41**,** 871–882.

OTIM, S., DOW, K. E., GROVER, V. & WONG, J. A. 2012. The impact of information technology investments on downside risk of the firm: Alternative measurement of the business value of IT. *Journal of Management Information Systems,* 29**,** 159–194.

PALLANT, J. 2013. *SPSS survival manual,* McGraw-Hill Education (UK).

PAVLOU, P. A. & EL SAWY, O. A. 2006. From IT leveraging competence to competitive advantage in turbulent environments: The case of new product development. *Information Systems Research,* 17**,** 198–227.

PELLA, M. D. A., SUMARWAN, U. & DARYANTO, A. 2013. Factors affecting poor strategy implementation. *Gadjah Mada International Journal of Business,* 15**,** 183–204.

PILLANIA, R. K. & KAZMI, A. 2008. A proposed framework for strategy implementation in the Indian context. *Management Decision,* 46**,** 1564–1581.

POISTER, T. H. 2005. Strategic planning and management in state departments of transportation. *International Journal of Public Administration,* 28**,** 1035–1056.

POISTER, T. H. 2010. The future of strategic planning in the public sector: Linking strategic management and performance. *Public Administration Review,* 70**,** s246–s254.

POISTER, T. H., EDWARDS, L. H., PASHA, O. Q. & EDWARDS, J. 2013. Strategy formulation and performance: Evidence from local public transit agencies. *Public Performance & Management Review,* 36**,** 585–615.

PORTER, M. E. 2008. The five competitive forces that shape strategy.

RADOMSKA, J. 2014. Linking the main obstacles to the strategy implementation with the company's performance. *Procedia-Social and Behavioral Sciences,* 150**,** 263–270.

RAGHUPATHI, W. 2007. Corporate governance of IT: A framework for development. *Communications of the ACM,* 50**,** 94–99.

RATHNAM, R., JOHNSEN, J. & WEN, H. J. 2005. Alignment of business strategy and IT strategy: A case study of a fortune 50 financial services company. *Journal of Computer Information Systems,* 45**,** 1–8.

RAY, G., MUHANNA, W. A. & BARNEY, J. B. 2005. Information technology and the performance of the customer service process: A resource-based analysis. *MIS quarterly***,** 625–652.

REICHE, D. 2010. Energy policies of Gulf Cooperation Council (GCC) countries—Possibilities and limitations of ecological modernization in rentier states. *Energy Policy,* 38**,** 2395–2403.

ROBERTSON, C. J., DIYAB, A. A. & AL-KAHTANI, A. J. I. B. R. 2013. A cross-national analysis of perceptions of corporate governance principles. 22**,** 315–325.

ROSENZWEIG, P. 2014. *The halo effect:... and the eight other business delusions that deceive managers,* Simon and Schuster.

ROSS, J. W., SEBASTIAN, I. M. & BEATH, C. M. 2017. How to develop a great digital strategy. *MIT Sloan Management Review,* 58**,** 7–9.

SABOURIN, V. 2015. Strategy execution: Five drivers of performance. *Journal of Strategy and Management,* 8**,** 127–138.

SALAMEH, M. G. 2016. Saudi Arabia's vision 2030: A reality or mirage.

SAMBAMURTHY, V., BHARADWAJ, A. & GROVER, V. 2003. Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms. *MIS quarterly***,** 237–263.

SANTHANAM, R. & HARTONO, E. 2003. Issues in linking information technology capability to firm performance. *MIS quarterly***,** 125–153.

SCHAAP, J. I. 2012. Toward strategy implementation success: An empirical study of the role of senior-level leaders in the Nevada gaming industry. *UNLV Gaming Research & Review Journal,* 10**,** 2.

SCHWARTZ, E. S. & ZOZAYA-GOROSTIZA, C. 2003. Investment under uncertainty in information technology: Acquisition and development projects. *Management Science,* 49**,** 57–70.

SCOTLAND, J. 2012. Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching,* 5**,** 9.

SETIA, P., VENKATESH, V. & JOGLEKAR, S. 2013. Leveraging digital technologies: How information quality leads to localized capabilities and customer service performance. *Mis Quarterly,* 37**,** 565–590.

SHAH, A. M. 2005. The foundations of successful strategy implementation overcoming the obstacles. *Global Business Review,* 6**,** 293–302.

SHRIVASTAVA, P. 1986. Is strategic management ideological? *Journal of Management,* 12**,** 363–377.

SILVA, L. & HIRSCHHEIM, R. 2007. Fighting against windmills: Strategic information systems and organizational deep structures. *MIS Quarterly***,** 327–354.

SOROOSHIAN, S., NORZIMA, Z., YUSOF, I. & ROSNAH, Y. 2010. Effect analysis on strategy implementation drivers. *World Applied Sciences Journal,* 11**,** 1255–1261.

SRIVASTAVA, A. K., SUSHIL, S., IRANI, Z. & IRANI, Z. 2015. Modeling organizational and information systems for effective strategy execution. *Journal of Enterprise Information Management,* 28.

STACEY, R. D. 2007. *Strategic management and organisational dynamics: The challenge of complexity to ways of thinking about organisations,* Pearson Education.

STRATEGY& & PWC 2014. Key findings. Strategy-execution survey.

SUSHIL, K. 2008. How balanced is balanced scorecard. *Global Journal of Flexible Systems Management,* 9**,** 3–4.

TARAFDAR, M. & GORDON, S. R. 2007. Understanding the influence of information systems competencies on process innovation: A resource-based view. *The Journal of Strategic Information Systems,* 16**,** 353–392.

TIPPINS, M. J. & SOHI, R. S. 2003. IT competency and firm performance: Is organizational learning a missing link? *Strategic Management Journal,* 24**,** 745–761.

VENKATESH, V., BROWN, S. A. & BALA, H. 2013. Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly,* 37**,** 21–54.

WALKER, R. M. 2013. Strategic management and performance in public organizations: Findings from the Miles and Snow framework. *Public Administration Review,* 73**,** 675–685.

WEILL, P., SUBRAMANI, M. & BROADBENT, M. 2002. Building IT infrastructure for strategic agility. *Sloan Management Review,* 44.

WELSH, D. H., MEMILI, E., KACIAK, E. & AL SADOON, A. J. J. O. B. R. 2014. Saudi women entrepreneurs: A growing economic segment. 67**,** 758–762.

WOODARD, C. J., RAMASUBBU, N., TSCHANG, F. T. & SAMBAMURTHY, V. 2012. Design capital and design moves: The logic of digital business strategy. *Forthcoming, MIS Quarterly, Special Issue on Digital Business Strategy: Toward a Next Generation of Insights*.

XUE, Y., LIANG, H. & BOULTON, W. R. 2008. Information technology governance in information technology investment decision processes: The impact of investment characteristics, external environment, and internal context. *MIS Quarterly***,** 67–96.

YAPRAK, A., XU, A. P. S. & CAVUSGIL, A. P. E. 2011. Effective global strategy implementation. *Management International Review,* 51**,** 179–192.

YAYLA, A. A. & HU, Q. 2014. The effect of board of directors' IT awareness on CIO compensation and firm performance. *Decision Sciences,* 45**,** 401–436.

YEH, C.-H., LEE, G.-G. & PAI, J.-C. 2012. How information system capability affects e-business information technology strategy implementation: An empirical study in Taiwan. *Business Process Management Journal,* 18**,** 197–218.

ZUBOVIC, A., PITA, Z. & KHAN, S. A framework for investigating the impact of information systems capability on strategic information systems planning outcomes. PACIS 2014: IT Ubiquitous and Collaborative Innovation, 2014. Association for Information Systems (AIS), 1–12.

7 Appendices

7.1 Appendix - Questionnaire

QUESTIONNAIRE

UNIVERSITY OF LIVERPOOL

How can we use information technology to improve strategy implementation?

Introduction:

Strategy implementation is an essential component of the strategic management process and is crucial to organisations success ((Elbanna et al., 2016, Noble, 1999). If you fail to execute your strategy, then the strategic planning efforts and investments you have made are worthless, and you may not achieve your organisational objectives (Brenes et al., 2008, Fishman, 2009, Pella et al., 2013). This research critically studies the phenomenon of strategy implementation to help managers overcome the challenges involved using information technology and by providing them with actionable knowledge that can be used in the work environment. This knowledge is rooted in both theory and practice and can be applied directly to organisational activities.

Several factors affect strategy implementation including human resources, corporate communication, technology, culture and others. However, in this study, the researcher will focus on one factor which is technology.

The researcher is a doctorate student who is doing this study as part of his DBA programme at the University of Liverpool. The researcher spent more than 18 years in Saudi Arabia working in different sectors and industries. His thesis title is “The impact of technology on strategy implementation in public sector organisations in Saudi Arabia.”

The purpose of this questionnaire is to explore the technology dimension and define the factor(s) that impact the implementation of the strategy.

Instructions:

- If you have not engaged or involved in any way with strategic planning or implementation in your organisation, please stop now and return this questionnaire to the researcher.
- Consider each item separately and rate each item independently of all others. Tick the rating that indicates the extent to which you agree with each statement. Please do not

skip any rating. If you do not know about a particular area, please tick N/A (Not Applicable).

Section A: Strategy Implementation Importance

Please indicate your agreement degree to the following statements:

Sr.	Item	Strongly Agree (1)	Agree (1)	Neutral (3)	Disagree (4)	Strongly Disagree (5)	N/A
1	I have personally been involved with strategy implementation in my current job.						
2	My organisation is better at strategic planning than strategy implementation.						
3	There is a gap between my organisation's strategy and its implementation.						
4	My organisation is effectively implementing its strategy.						
5	Strategy implementation is more important to my organisation than strategic planning.						
6	Strategic planning is more important to my organisation than strategy implementation.						

7	Successful implementation of the strategy will enhance my organisation's performance.						

Section B: Strategy Implementation Drivers

Please indicate which of items below you believe to be a driver for strategy implementation:

Sr.	Item	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (5)	Strongly Disagree (5)	N/A
1	Having staff who understand the organisation's strategy						
2	Support and clear strategic directions from the organisation's management and leaders						
3	Alignment between human resources goals with organisation's strategy						
4	Alignment between human resources incentives with the organisation's strategy						
5	Alignment between organisational culture and the strategy						
6	Well written or formulated strategy						
7	Well established controls of strategy implementation						

8	Support from information technology to strategy implementation activities						
9	Having a coordinated body for strategy implementation like a PMO (Projects Management Office), an SEO (Strategy Execution Office) or others						
10	Having staff trained in project management methods (such as Prince II and PMI)						
11	Hiring a consultant to support strategy implementation activities						

Other, please specify

_____

_____

_____

_____

_____

_____

_____

Section C: Technological Factors

Among the following technological factors that have ***positively*** impacted strategy implementation, please indicate your agreement degree to the following statements:

Sr.	Item	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)	N/A
1	Having an automated system(s) for core business						
2	Having an automated system(s) for support functions like finance and HR						
3	Having an automated system(s) to manage the strategic management function and monitoring performance targets (financial & strategic)						
4	Having an automated communication tool(s) (email, Yammer, …etc.)						
5	Having staff who are experienced in using the information systems and automated tools						
6	Using a technology consultant(s) to support in automating the strategy implementation activities						

Other, please specify

_____

_____

_____

Among the following technological factors that have ***negatively*** impacted strategy implementation, please indicate your agreement degree to the following statements:

Sr.	Item	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	N/A
1	Having no or partially automated systems for core business						
2	Having no or partially automated systems for support functions like finance and HR						
3	Having no or partially automated systems to manage the strategic management function and monitoring performance targets (financial & strategic)						
4	Having no or partially automated communication tools (email, Yammer, …etc.)						
5	The staff are not experienced in the use of information systems and automated tools.						
6	Not using a technology consultant(s) to support in automating strategy implementation activities						

Other, please specify

_____

_____

_____

_____

_____

_____

_____

Section D: Background Information

1. Gender
    a. Male
    b. Female
2. Age
    a. 21–30
    b. 31–40
    c. 41–50
    d. 51+
3. Highest level of education you have completed.
    a. Bachelor’s degree
    b. Master's degree
    c. Doctoral degree
    d. Other _____
4. Have you ever trained on strategic planning or implementation?
    a. Yes
    b. No
5. How many employees are employed in your organisation?
    a. 1–50
    b. 51–100
    c. 101–300
    d. 301–500
    e. Above 500
6. Years of experience
    a. 1–5 years

b. 6–10 years
c. 11–15 years
d. 16–20 years
e. Above 20 years

7. Your current title
    a. Director
    b. Senior Manager
    c. Manager
    d. Other _____

Section E: Questionnaire Closing

1. Are you willing to be interviewed in order to discuss in more details the technological factor(s) with greater impact on strategy implementation? Please tick Yes or No

Yes ☐ No ☐

If you answered yes, please provide your contact details below:

Name:

Tel:

Email:

2. Where does the IT function (Information Technology) sit in your organisation?
    a. Reporting to the organisation CEO
    b. A function under another business unit like operations, support ...etc.
    c. Outsourced
    d. Other _____

3. Other Comments

_____
_____
_____
_____
_____

7.2 Appendix – Code Book

Variable Name	SPSS Variable Name	Coding Instructions									
RespondentID	Resp_id	Number									
The researcher has personally been involved with strategy implementation in my current job.	Str_Job	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
My organisation is better at strategic planning than at strategy implementation.	Str_Pln	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
There is a gap between my organisation's	Str_Gap	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

strategy and its implementation.											
My organisation is effectively implementing its strategy.	Imp_Eff	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Strategy implementation is more important to my organisation than strategic planning.	Imp_Pln	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Strategic planning is more important to my organisation than strategy implementation.	Pln_Imp	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

Successful implementation of strategy will enhance my organisation's performance.	Org_Per	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having staff who understand the organisation's strategy	Str_Und	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Support and clear strategic directions from the organisation's management and leaders	Cl_Dir	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Alignment between human resources goals with organisation's strategy	Alig_HR_G	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

Alignment between human resources incentives with organisation's strategy	Alig_HR_In	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Alignment between organisational culture and the strategy	Alig_Cul	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Well-written or formulated strategy	Well_Pln	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Well-established controls of strategy implementation	Well_Ctl	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Support from information technology to strategy implementation activities	Sup_IT	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

Having a coordinated body for strategy implementation like a PMO (Projects Management Office), a SEO (Strategy Execution Office) or others	Cor_Bdy	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having staff trained in project management methods (such as Prince II and PMI)	Trn_Stff	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Hiring a consultant to support strategy implementation activities	Cns_Supp	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

Having an automated system(s) for core business	P_Sys_Cor	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having an automated system(s) for support functions like finance and HR	P_Sys_SF	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having an automated system(s) to manage the strategic management function and monitoring performance targets (financial & strategic)	P_Sys_Str	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having an automated communication	P_Comm	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

tool(s) (email, Yammer, …etc.)											
Having staff who are experienced in using the information systems and automated tools	P_Stff_Exp	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Using a technology consultant(s) to support in automating the strategy implementation activities	P_Cns_Imp	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having no or partially automated systems for core business	N_Sys_Cor	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having no or partially automated	N_Sys_SF	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

systems for support functions like finance and HR											
Having no or partially automated systems to manage the strategic management function and monitoring performance targets (financial & strategic)	N_Sys_Str	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Having no or partially automated communication tools (email, Yammer, …etc.)	N_Comm	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			

The staff are not experienced in the use of information systems and automated tools	N_Stff_Exp	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Not using a technology consultant(s) to support in automating strategy implementation activities	N_Cns_Imp	Strongly Agree = 1	Agree = 2	Neutral = 3	Disagree = 4	Strongly Disagree = 5	N/A = 0	Missing = 99			
Gender	Gender	Male = 1	Female = 2	Missing = 99							
Age	Age	21–30 = 1	31–40 = 2	41–50 = 3	51+ = 4	Missing = 99					
The highest level of education you have completed	Edu	Bachelors = 1	Masters = 2	Doctoral = 3	High School = 0	Missing = 99					
Have you ever trained in	Str_Trn	Yes = 1	No = 2	Missing = 99							

strategic planning or strategy implementation?											
How many employees are employed in your organisation?	Org_Emp	1–50 = 1	51–100 = 2	101–300 = 3	301–500 = 4	Above 500 = 5	Missing = 99				
Years of experience	Yrs_Exp	1–5 = 1	6–10 = 2	11–15 = 3	16–20 = 4	Above 20 = 5	Missing = 99				
Your current title	Curr_Ttl	Director = 1	Sr. Manager = 2	Manager = 3	General Manager / Executive Manager = 4	Team Leader = 5	Project Manager / Coordinator = 6	Teacher = 7	Consultant / researcher = 8	GM Assistant = 9	Missing = 99
Where does the IT function (Information Technology) sit in your organisation?	Org_IT	Reporting to CEO = 1	Function under other BU = 2	Outsourced = 3	Missing = 99						

7.3 Appendix – Interview Form

The researcher wants to thank you for giving him the opportunity to meet with you today. The researcher name is Rafat Aziz Dasan a DBA student at the University of Liverpool – UK, and the researcher would like to talk to you about your experiences participating in the strategy implementation activities within your organisation. Specifically, the impact of technology on these activities. This interview will be part of research that the researcher is conducting:

- To study the technological factor(s) with greater impacts and analyse the different dimensions of impact on strategy implementation.
- To conclude, make recommendations and create actionable knowledge, which provides managers with the ability to improve strategy implementation.

The interview should take one to two hours at max. The researcher will be recording the interview session because the researcher do not want to miss any of your valuable answers and comments. So please be sure to speak up so that we do not miss any of your comments.

All responses will be kept confidential as mentioned in the "Participant Information Sheet" which communicated to you earlier. This means that your interview responses will only be shared with research supervisors and we will ensure that any information the researcher include in my thesis does not identify you as the respondent. Remember, you do not have to talk about anything you do not want to, and you may end the interview at any time.

As a result, you have agreed and signed the consent form.

Are there any questions about what the researcher have just explained?

Are you willing to participate in this interview?

Introduction

Strategy implementation is an essential component of the strategic management process and is crucial to organisations success ((Elbanna et al., 2016, Noble, 1999). If you fail to execute your strategy, then the strategic planning efforts and investments you have made are worthless, and you may not achieve your organisational objectives (Brenes et al., 2008, Fishman, 2009, Pella

et al., 2013). This research critically studies the phenomenon of strategy implementation to help managers overcome the challenges involved using information technology and by providing them with actionable knowledge that can be used in the work environment. This knowledge is rooted in both theory and practice and can be applied directly to organisational activities.

Several factors affect strategy implementation including human resources, corporate communication, technology, culture and others. However, in this study, The researcher will focus on one factor which is technology.

The researcher has completed the first stage of this research which is the quantitative part in which The researcher surveyed what the technological factor[s] with greater impact on the implementation of the strategy is. The researcher has found that the first three factors with the most impact on the strategy implementation are:

- An automated system(s) for core business
- An automated system(s) for support functions like finance and HR
- An Automated system(s) to manage the strategic management function and monitoring performance targets (financial & strategic)

The purpose of this interview is to explore these factors in more details in order to achieve the research objectives.

Questions

1. Would you please give us an overview of your organisation; industry, size, strategy and others.
2. Would you please explain your role in the organisation and its relation to the strategy implementation activities?
3. Do you think to capitalise on having an automated system(s) for core business will positively impact strategy implementation? Would you please explain in more detail how this is realised in your organisation?
4. Do you think to capitalise on having an automated system(s) for support functions like finance and HR will positively impact strategy implementation? Would you please explain in more detail how this is realised in your organisation?

5. Do you think capitalizing on having automated system(s) to manage the strategic management function and monitoring performance targets (financial & strategic) will positively impact strategy implementation? would you please explain in more detail how this is realized in your organisation?
6. From another perspective, do you think enhancing strategy implementation through capitalising on having an automated system(s) for core business will lead to a positive impact on organisational performance? Would you provide more details on your views on this impact (financially, operationally…)?
7. From another perspective, do you think enhancing strategy implementation through capitalising on having an automated system(s) for support functions like finance and HR will lead to a positive impact on organisational performance? Would you provide more details on your views on this impact (financially, operationally…)?
8. From another perspective, do you think enhancing strategy implementation through capitalizing on having automated system(s) to manage the strategic management function and monitoring performance targets (financial & strategic) will lead to a positive impact on organisational performance. Would you provide more details on your views on this impact (financially, operationally…)?

_____

_____

9. Do you face any barriers/challenges to the strategy implementation in view of these technological factors, if any, would you please explain?
10. What actions, interventions, tools etc. Would you recommend be scaled up and sustained that managers need to adopt in order to improve their strategies implementation based on the mentioned technological factors:

    - An automated system(s) for core business
    - An automated system(s) for support functions like finance and HR
    - An Automated system(s) to manage the strategic management function and monitoring performance targets (financial & strategic)

11. Do you think implementing the above actions will trigger a change in an organisation that needs management? If yes, would you please, from your experience, provide the

best ways and tools to manage this change and overcome the challenges that managers will face?

Closing

12. Is there anything more you would like to add?
13. The researcher will be analysing the information you and others gave me and including it in my thesis report which expected to be completed by June 2017. The researcher will be happy to send you a copy of my thesis at that time if you are interested.

Thank you for your time.

7.4 Appendix – Questionnaire in Arabic Language

تأثير التكنولوجيا على التنفيذ الإستراتيجي في الجهات الحكومية بالمملكة العربية السعودية

ما هو الهدف من هذه الدراسة؟

إن التنفيذ الإستراتيجي مكون مهم في دورة حياة الإدارة الإستراتيجية وضروري لنجاحها. إن الفشل في تنفيذ الإستراتيجية سيؤدي إلى ضياع جهود التخطيط الإستراتيجي والإستثمارات التي تمت وسيؤدي إلى عدم تحقيق الأهداف المرجوة.
يجب أن يتم التركيز من قبل المديرين والباحثين والممارسين على التنفيذ الإستراتيجي ومساعدة المنظمات في تنفيذ خططهم الإستراتيجية وتزويدهم بالأدوات والوسائل وأطر العمل الضرورية لذلك.
هناك العديد من العوامل التي تؤثر على التنفيذ الإستراتيجي منها الموارد البشرية ، الإتصالات المؤسسية، التكنولوجيا ، ثقافة المنظمة وغيرها. ومع ذلك، فإن الباحث يركز على عامل التكنولوجيا في هذه الدراسة.
إن الباحث هو طالب دكتوراة يقوم بهذه الدراسة كجزء من برنامج "دكتوراة إدارة أعمال" في جامعة ليفربول. لقد أمضى الباحث أكثر من 15 عاما في المملكة العربية السعودية عاملا في العديد من القطاعات والصناعات.
إن عنوان هذه الأطروحة هو " تأثير التكنولوجيا على التنفيذ الإستراتيجي في الجهات الحكومية في المملكة العربية السعودية"
إن هدف هذا الإستبيان هو إستكشاف البعد التكنولوجي وتحديد أهم العوامل التي تؤثر على تنفيذ استراتيجيات الأعمال.

القسم (أ) : أهمية التنفيذ الإستراتيجي
أرجو الإشارة بدرجة موافقتكم على الجمل التالية:

م.	البند	موافق بشدة (1)	موافق (2)	على الحياد (3)	غير موافق (4)	غير موافق بشدة (5)	لا ينطبق
1	أنا مشارك شخصيا في التنفيذ الإستراتيجي في عملي الحالي						
2	أن الجهة التي أعمل فيها أفضل في التخطيط الإستراتيجي منها في التنفيذ الإستراتيجي						
3	هناك فجوة بين الخطة الإستراتيجية للجهة وأنشطة تنفيذها.						
4	إن الجهة التي أعمل فيها تقوم بتنفيذ إستراتيجية الأعمال بشكل فعال.						
5	إن التنفيذ الإستراتيجي في جهتي أكثر أهمية من التخطيط الإستراتيجي						
6	إن التخطيط الإستراتيجي في جهتي أكثر أهمية من التنفيذ الإستراتيجي						
7	إن التنفيذ الناجح لإستراتيجيات الأعمال سيؤدي إلى تحسين الاداء المؤسسي						

القسم (ب): محركات التنفيذ الإستراتيجي
أرجو تحديد أي البنود التالية تعتقد انها محرك للتنفيذ الإستراتيجي :

م.	البند	موافق بشدة (1)	موافق (2)	على الحياد (3)	غير موافق (4)	غير موافق بشدة (5)	لا ينطبق
1	فهم وإدراك الموظفين لإستراتيجية الجهة						
2	دعم وإعطاء توجيهات إستراتيجية واضحة من قبل إدارة الجهة وقادتها						
3	المواءمة بين أهداف الموارد البشرية وإستراتيجية الجهة						
4	المواءمة بين حوافز الموارد البشرية وإستراتيجية المؤسسة						

5	المواءمة بين ثقافة المؤسسة والخطة الإستراتيجية						
6	خطة إستراتيجية مصاغة ومكتوبة بشكل جيد						
7	إرساء ضوابط جيدة للتنفيذ الإستراتيجي						
8	دعم تكنولوجيا المعلومات لنشاطات التنفيذ الإستراتيجي						
9	وجود إدارة أو وحدة تنسيقية للتنفيذ الإستراتيجي مثل مكتب إدارة المشاريع (PMO)، مكتب التنفيذ الاستراتيجي (SEO) وغيرها						
10	وجود موظفين مدربين على أساليب ومنهجيات إدارة المشاريع مثل (Prince II, PMI)						
11	تعيين شركة استشارية لدعم نشاطات التنفيذ الإستراتيجي						

غيرها (ارجو التحديد)

_____
_____
_____
_____
_____
_____

القسم (ج) : العوامل التكنولوجية

من بين العوامل التكنولوجية الواردة أدناه ، التي تؤثر **<u>ايجابيا</u>** على التنفيذ الاستراتيجي. أرجو الإشارة بدرجة موافقتكم على الجمل التالية**:**

م.	البند	موافق بشدة (1)	موافق (2)	على الحياد (3)	غير موافق (4)	غير موافق بشدة (5)	لا ينطبق
1	وجود برامج وأنظمة موأتمتة للأعمال الرئيسية في الجهة.						
2	وجود برامج وأنظمة موأتمتة للإدارات الداعمة مثل الإدارة المالية وإدارة الموارد البشرية						
3	وجود برامج وأنظمة موأتمتة لإدارة الاستراتيجية ومراقبة أداء تحقيق الأهداف (المالية والإستراتيجية)						
4	وجود أدوات تواصل موأتمتة (الايميل ، يامر، سكايب وغيرها)						
5	وجود موظفين يتمتعون بالخبرة في استخدام أنظمة المعلومات والادوات الموأتمتة						
6	أستخدام إستشاري تكنولوجيا لدعم أتمتة نشاطات التنفيذ الإستراتيجي						

غيرها (ارجو التحديد)

_____
_____
_____

_____
_____
_____
_____

من بين العوامل التكنولوجية الواردة أدناه ، التي تؤثر **سلبا** على التنفيذ الاستراتيجي. أرجو الإشارة بدرجة موافقتكم على الجمل التالية:

م.	البند	موافق بشدة (1)	موافق (2)	على الحياد (3)	غير موافق (4)	غير موافق بشدة (5)	لا ينطبق
1	عدم وجود برامج وأنظمة موأتمتة للأعمال الرئيسية في الجهة أو وجودها بشكل جزئي.						
2	عدم وجود برامج وأنظمة موأتمتة للإدارات الداعمة مثل الإدارة المالية وإدارة الموارد البشرية أو وجودها بشكل جزئي						
3	عدم وجود برامج وأنظمة موأتمتة لإدارة الاستراتيجية ومراقبة أداء تحقيق الأهداف (المالية والإستراتيجية) أو وجودها بشكل جزئي						
4	عدم وجود أدوات تواصل موأتمتة (الايميل ، يامر، سكايب وغيرها) أو وجودها بشكل جزئي						
5	الموظفين لا يتمتعون بالخبرة في استخدام أنظمة المعلومات والادوات الموأتمتة						
6	عدم أستخدام إستشاري تكنولوجيا لدعم أتمتة نشاطات التنفيذ الإستراتيجي						

غيرها (ارجو التحديد)

_____
_____
_____
_____
_____
_____
_____

القسم (د) : معلومات خلفية المشارك

1. الجنس
   a. ذكر
   b. أنثى

2. العمر
   - 21–30
   - 31–40
   - 41–50
   - 51+

3. أعلى مستوى تعليمي حصلت عليه

- درجة البكالوريوس
- درجة الماجستير
- درجة الدكتوراة
- أخرى (ارجو التحديد)_____

4. هل حصلت مسبقا على تدريب في مجال التخطيط أو التنفيذ الإستراتيجي
   - نعم
   - لا

5. كم عدد الموظفين في جهتكم ؟
   - 1–50
   - 51–100
   - 101–300
   - 301–500
   - Above 500

6. سنوات الخبرة
   - 1–5 years
   - 6–10 years
   - 11–15 years
   - 16–20 years
   - Above 20 years

7. منصبك الحالي هو
   - مدير عام
   - مدير أول
   - مدير
   - أخرى (ارجو التحديد)_____

القسم (هـ) : الإغلاق

1. هل لديك الرغبة في عقد مقابلة معكم لمناقشة اكثر العوامل التكنولوجية تأثيرا على التنفيذ الإستراتيجي ؟
   - نعم
   - لا

2. إذا كانت إجابتك نعم نرجو تزويد تفاصيل الاتصال بكم ، الاسم ، الهاتف ، الايميل

   _____
   _____
   _____

3. أين تقع إدارة تكنولوجيا المعلومات في جهتكم؟
   - مرتبطة مباشرة بالمدير التنفيذي للجهة - أعلى منصب
   - إدارة تحت إدارة أخرى مثل العمليات ، الدعم ، وغيرها
   - تدار من خارج الجهة
   - أخرى (ارجو التحديد)_____

4. ملاحظات أخرى

_____
_____
_____